
This document has been checked for information on Native American burials. No images considered to be culturally insensitive, including images and drawings of burials, Ancestors, funerary objects, and other NAGPRA material were found.



**UNIVERSITY OF
GEORGIA**

**Franklin College of
Arts and Sciences**

Department of Anthropology

Laboratory of Archaeology

UNIVERSITY OF GEORGIA
LABORATORY OF ARCHAEOLOGY SERIES
REPORT NUMBER 36

WOODLAND PERIOD ARCHAEOLOGY OF THE GEORGIA COASTAL PLAIN

KARL T. STEINEN

UNIVERSITY OF GEORGIA
LABORATORY OF ARCHAEOLOGY SERIES
REPORT NUMBER 36

WOODLAND PERIOD ARCHAEOLOGY OF THE GEORGIA COASTAL PLAIN

KARL T. STEINEN
DEPARTMENT OF SOCIOLOGY AND ANTHROPOLOGY
WEST GEORGIA COLLEGE



ATHENS
1995

GEORGIA ARCHAEOLOGICAL RESEARCH DESIGN PAPER NO. 12

University of Georgia
Laboratory of Archaeology Series
Report No. 36

Georgia Archaeological Research Design Paper No. 12

WOODLAND PERIOD ARCHAEOLOGY OF THE GEORGIA COASTAL PLAIN

By

Karl T. Steinen
Department of Sociology and Anthropology
West Georgia College

December, 1995

Preface

This report was initiated in the Fall of 1993 and completed in the Spring of 1994. I have tried to use as wide a range of published and unpublished sources as possible. No attempt was made to complete an overview of all of the differing interpretations of the Woodland Period on the Georgia Coastal Plain that have been presented. Such a summary is outside of the scope of this report. However, I have tried to present discussions of the data, much of it incompletely reported, to allow the reader to understand what are the larger and more pressing questions concerning the Woodland. Details can be found in the individual reports and publications that are cited.

When I began writing this report I envisioned developing a more detailed description of materials and culture. After a short period of research I realized that much of what has been written in the past, including my own work, is very impressionistic and speculative in nature. We really know very little about how people actually lived during this nearly 2,000 year period. Aside from the Chattahoochee River drainage and part of the Flint we know little beyond incompletely reported ceramic collections. Because there is so much to learn I hope that my presentation of both the data and interpretations will prove to generate more questions about the Woodland than they answer.

This report benefited greatly from the teachings of as well as discussions and correspondence with William H. Sears, Jerald Milanich, Tim Kohler, Lewis Larson, Ray Crook, Rowe Bowen, Ken Sassman, Frankie Snow, Chris Trowell, Frank Schnell, Mark Williams, Dan Elliott, the late Charles Fairbanks, and numerous colleagues who have knowingly and unknowingly influenced my views and understanding of the basic data through the years.

This research has been financed in part with Federal funds from the National Park Service, Department of the Interior, through the Historic Preservation Division of the Georgia Department of Natural Resources. However, the contents and opinions do not necessarily reflect the views or policies of the Department of the Interior or the Georgia Department of Natural Resources, nor does the mention of trade names, commercial products or consultants constitute endorsement or recommendation by the Department of the Interior or the Georgia Department of Natural Resources.

This program receives Federal financial assistance for identification and protection of historic properties. Under Title VI of the Civil Rights Act of 1964 and Section 504 of The Rehabilitation Act of 1973, the U.S. Department of the Interior prohibits discrimination on the basis of race, color, national origin, or handicap in its federally assisted programs. If you believe you have been discriminated against in any program, activity, or facility as described above, or if you desire further information, please write to:

Office of Equal Opportunity
U. S. Department of the Interior
Washington, D.C. 20240

TABLE OF CONTENTS

Preface	i
Statement of Funding	ii
Table of Contents	iii
List of Maps and Tables	iv
Chapter 1. Introduction	1
Chapter 2. Environment of the Interior Coastal Plain of Georgia	4
Chapter 3. Chronology	7
Chapter 4. Significant Excavations and Surveys	15
Chapter 5. Middens, Mounds, And The Social Archaeology of the Woodland Period On the Coastal Plain of Georgia	31
Chapter 6. Resource Management Considerations	45
Bibliography	52

List of Maps, Tables and Figures

Map 1. Distribution of Gulf Coast and Cord-Marked Ceramic Areas	3
Map 2. Showing Geological Areas Discussed In Text.	5
Map 3. Rivers of the Coastal Plain and Important Sites.	17
Table 1. Chronology of Georgia Coastal Plain As Discussed in Text.	9
Figure 1. Selected Gulf Coast Ceramic Types	10
Figure 2. Selected Cord-Marked Ceramics	12

CHAPTER 1

INTRODUCTION

The Woodland Period is usually defined in the archaeological record by the presence of ceramics, settled village life, conical burial mounds, and a subsistence system that includes maize horticulture (Willey and Phillips 1958; Ford 1969:1-5). This concept is widely used in American archaeology but there is really little agreement as to which of these characteristics truly defines the period. Many archaeologists deny a role for maize horticulture prior to the Mississippian Period and some argue that the earliest ceramics actually belong to the "Gulf Formational Stage" (Walthal 1980:77-103). Ceramics, settled village life, and conical burial mounds are found at Mississippian sites as well. However, the Woodland is a workable concept if we look at specific ceramic types in conjunction with the other features. For the purpose of this paper the time period from 1000 B.C. to A.D. 900 will be discussed.

The Woodland is more than a group of features set into a 1900 year span of time. It can be contrasted with the preceding Archaic and following Mississippian Periods by a very distinctive way of life. The overall socio-political organization of the Woodland represents an uneven growth toward the complex societies that were encountered by deSoto in 1540. It was a period of experimentation with social organizations and economies, some of which failed and others which succeeded, that established the foundation for the phenomenally successful and elaborate societies of the Mississippian Period. Without the experimentation and transition provided by the Woodland Period I doubt very much that the Mississippian Period would have developed as it did.

The Coastal Plain of Georgia is a vast area that has received relatively little systematic attention from professional archaeologists over the past forty years. In the years immediately before and after World War II the Woodland Period archaeology of this area received wide spread study and a number of sites were extensively excavated. Beginning in the mid 1950's our systematic studies shifted elsewhere with the Coastal Plain in general and the Woodland Period in particular becoming both factual and theoretical backwaters. With the development of Cultural Resource Management programs there has been a resurgence of work on the Coastal Plain and our understanding of the Woodland Period has benefited from this.

Much of what we know of the Woodland on the Coastal Plain, particularly about ceramics and chronologies, can be traced to work on the Florida Gulf Coast, the Georgia Coast, and the Georgia Piedmont during the 1940's and 1950's. Indeed, the basic ceramic

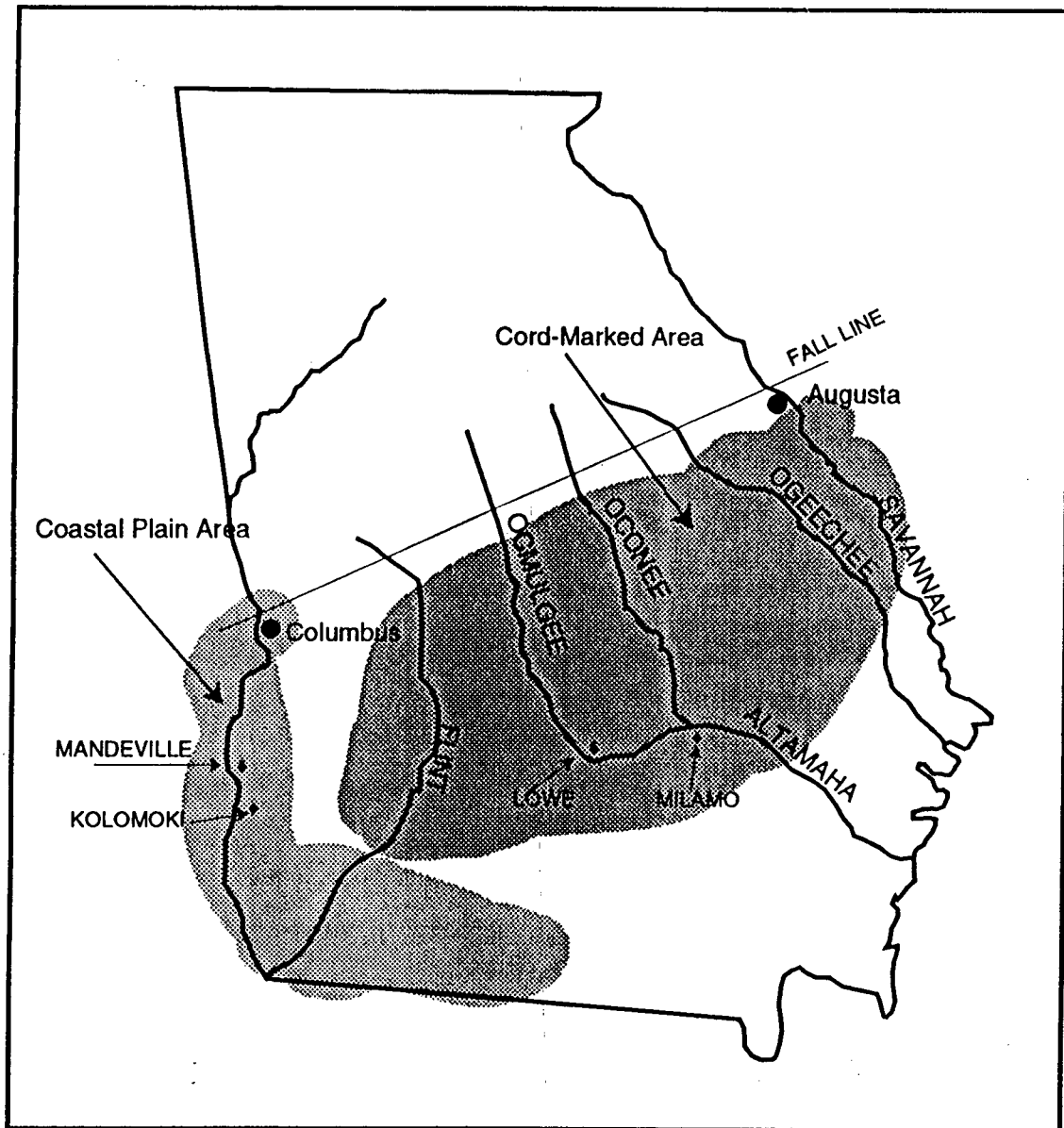
sequences that we use today come directly from the writings of Willey (1949), Wauchope (1966), Caldwell (1958), Kelly (1938), and Sears (1956). The longevity of these ceramic definitions is a tribute to the work of these pioneering archaeologists. It is also an indication that we have made little progress in the use of ceramics as indicators of time/space dynamics (Sears 1960; Ford 1954) or cultural patterns. I think that our failure to make significant improvements on the early typologies is a result of a lack of extensive excavations that could generate enough data to allow for meaningful changes in the typologies. This is different from the Piedmont and Ridge and Valley areas where the surveys and excavations discussed in other volumes in this series have made fruitful use of materials that have been recovered in recent years.

In this volume I will attempt to reconstruct the culture history of the Woodland Period on the Coastal Plain. This will consist of a retelling of the ceramic development in the area south the Fall Line. Since the vast bulk of our information from this area has been generated from river drainage specific surveys and excavations the discussion will concentrate on the Chattahoochee, Flint, Ocmulgee, Oconee, Ogeechee, and Savannah Rivers, which are the main rivers of Coastal Plain. Unfortunately, these river drainages have received different amounts of attention. We know very little about the Ogeechee and Oconee Rivers while we know a great deal about the Chattahoochee. These differences in coverage undoubtedly have colored our interpretations and will continue to do so until a greater equity of coverage is attained.

Unlike many of the volumes in this series I will generally avoid the use of specific phase names. This is because few of the the earlier investigators on the Georgia Coastal Plain used the phase concept and many of the phase names that have been developed in recent years appear to violate the original and, I think, correct use of the definition which emphasizes both temporal and regional dynamics (Willey and Phillips 1958:22). Also, there have been too few regional studies conducted on the Georgia Coastal Plain that involve the detailed excavations of sites that are necessary to define phases. Instead, I will use the more common subdivisions of Early, Middle and Late Woodland. Even with these it must be remembered that we are dealing with a continuum of time and artifact complexes that, in all probability, did not change uniformly in space or time.

The Woodland Period archaeology of the Coastal Plain can be divided into two separate ceramic traditions. One, found along the Chattahoochee and Lower Flint Rivers, is allied to the Gulf Coast. The ceramic sequence found there is similar to the one defined by Willey from the Florida Panhandle. From the Middle Flint eastward we find both Gulf Coast and Piedmont derived types as well as a poorly understood series of cord-marked pottery variously identified as Wilmington, Savannah or Ocmulgee. The exact temporal and cultural associations of these materials are only now beginning to be understood. What is important, but not well understood, is that these cord-marked materials, especially along the Ocmulgee, are usually found in association with either Gulf Coast types or Piedmont

types and that there are a scattering of sites in the Ocmulgee Basin that are either “pure” Gulf Coast or “pure” Piedmont in their content. That is to say, we find Swift Creek, Weeden Island, and Etowah sites along the Ocmulgee River. What the reasons for this mixing of two different ceramic traditions are has not been determined at this time.



Map 1. Distribution of Gulf Coast and Cord-Marked Ceramic Areas

CHAPTER 2

ENVIRONMENT OF THE INTERIOR COASTAL PLAIN OF GEORGIA

The northern limits of the Coastal Plain of Georgia are marked by the Fall Line which runs from Columbus in the west through Macon and ends at Augusta on the Savannah River in the east. A brief visual inspection of the area south of this line is misleading. What appears to be an almost uniform rolling environment covered by planted pine and row crops is in reality a group of varying environments that make-up highly complex environmental systems that have been divided into six distinct areas. Descriptions of various divisions of the Coastal Plain are taken from LaForge et al. (1925).

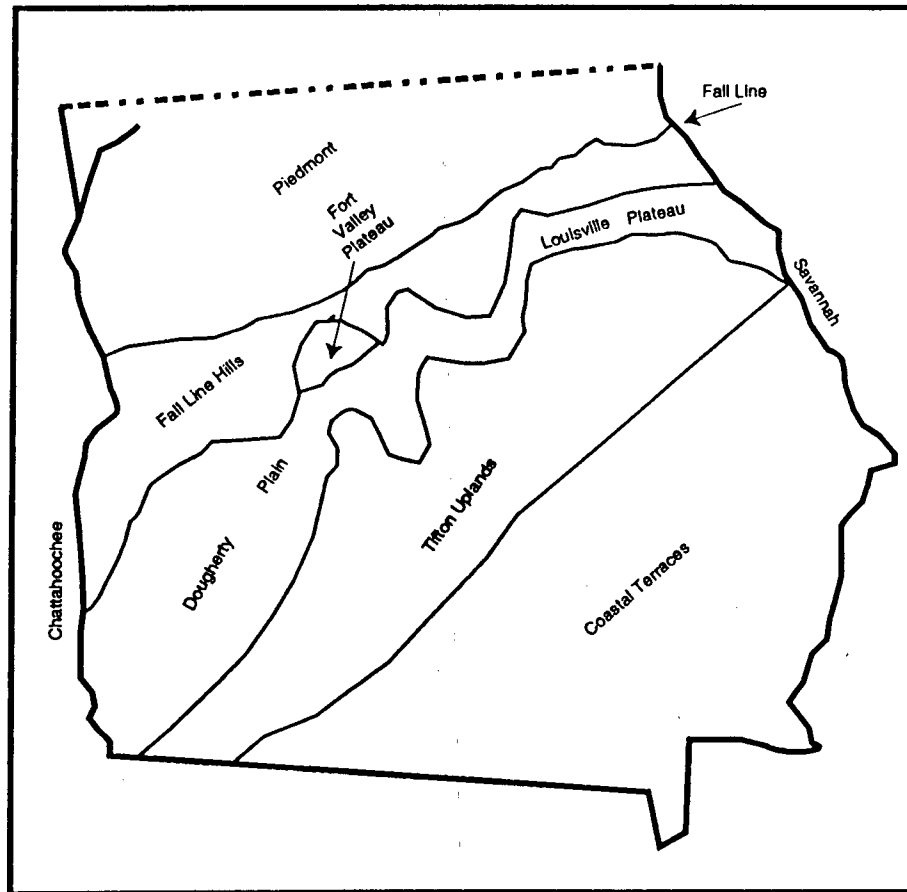
Fall Line Hills. The Fall Line Hills is an area that is less than 50 kilometers wide and represents the transition from the Piedmont to the more level Coastal Plain proper. The southern extent of the Fall Line Hills is a sinuous line from near the mouth of Coheele Creek in Early County to a point north of Americus in Sumpter County, eastward to a point approximately 25 kms south of Augusta. The Fall Line Hills are characterized by dark red soils, steep slopes, moist ravines and forests of the Piedmont aspect which is dominated by pine, and oak in the uplands and black gum, bay, poplar, and red maple in the lowland swamps.

Dougherty Plain. This is an area of some 7,000 square miles that has chocolate colored sandy loam soils, numerous sinkholes, dense hardwood forests, swampy hammocks and mesic hammocks. This irregularly shaped area follows the southern boundaries of the Fall Line Hills and interfaces with the Tifton Uplands area in a line from southwest of Bainbridge in the southeast north to Cordele and Abbeville on the Ocmulgee River, to south of Dublin on the Oconee northward to south of Waynesboro and then taking a strong southeast dip to the Savannah east of Millen. The area west of the Flint River is dotted by limestone sink holes which are much less numerous to the east of the river than they are to the west. This area is noted for its black clay loamy soils which derive from limestone as well as orange or red gravels, sands, sandy loams and clay loams. Flint nodules are distributed throughout most of this area

Tifton Uplands. To the southeast of the Dougherty Plain are the Tifton Uplands. This is an area of gently rolling hills and parallel ridges. The Tifton Uplands are separated from the Dougherty Plain by a noticeable westward facing escarpment that has a drop of from 100 to 140 feet in some areas.

Sinks and sink hole ponds are commonly found in the Tifton Uplands. They are generally small ranging from one acre in area upwards and tend to be shallow and choked

with cypress and other trees. Soils are mostly gray sand with a clay subsoil. In the past the Tifton Uplands supported a pine forest but much of this has been replaced by agricultural fields and intentionally planted pine plantations, however small tracts of the virgin forest are known.



Map 2
Showing Geological Areas Discussed In Text.
(From LaForge 1925)

Louisville Plateau. The Louisville Plateau extends from the Oconee River to the Savannah River and marks the boundary between the Fall Line Hills and the Tifton Upland. The most remarkable aspect of this plateau is its bright red sand which contrasts with the gray/yellow sands of the Tifton Uplands. Other than this feature the area is similar to the Tifton Uplands in nature.

Fort Valley Plateau. The Fort Valley Plateau is an area of some 300 square miles in the area between the Flint and Ocmulgee Rivers in Houston, Crawford and Macon Counties. To the west, north and northeast are the Fall Line Hills and the Dougherty Plain lies to the south. This area has red sandy soils and deeply cut rivers and creeks. Below the thin cap of red sands are light colored sands and kaolin clay.

Coastal Terraces. The southeast section of the Coastal Plain is composed of a series of terraces that are the results of higher sea levels in the past. These terraces cover approximately 18,000 square miles and extend inland some 60 miles along the Savannah River and over 150 miles along the Georgia/Florida line. Soils in this area are gray sands and sandy loams except in the area of sinks and swamps where the sands have been covered by muck. Vegetation of this area ranges from open pine in the interior to beach cover such as oak and sea oats. At least five sub-divisions of the Coastal Terraces have been defined which correlate to elevation above sea level:

Satilla Terrace	0-60 Feet AMSL
Penholoway Terrace	60-100 Feet AMSL
Okefenokee Terrace	100-160 Feet AMSL
Claxton Terrace	160-215 Feet AMSL
Hazelhurst Terrace	215-260 Feet AMSL

The Coastal Terraces represent not only the largest of the divisions of the Coastal Plain but the most varied in nature as well. A notable aspect of the area inland from the Coastal Zone is the fact that the rivers tend to be slow moving and have developed swamps along their banks. There are numerous sinks and ponds in this varied environment.

CHAPTER 3

CHRONOLOGY

The Woodland chronology, with revisions and improvements, for the southern Chattahoochee and Flint Rivers, follows the one defined by Gordon R. Willey for the Florida Gulf Coast (1949). Fig. 1 shows the development of ceramic series and culture periods on the Coastal Plain. In the 1950's and until quite recently, William H. Sears was a vocal dissenter from a portion of this chronology (Sears 1992). His dissent went unheeded by most archaeologists for over 30 years and the recent retraction of these ideas leaves Willey's ceramic sequence as the only one currently viable.

The Ocmulgee River and part of the Flint River present significantly different patterns than do the Chattahoochee and Lower Flint Rivers. Although it is quite common to see a sequence that combines a Willey derived development with one from the Piedmont for the Ocmulgee River (Snow 1977; Kelly 1938; Fairbanks 1956; Hamilton et al. 1975; Stoutamire et al. nd.; Williams 1975; Zierden 1978; Nielsen 1966) recent work suggests that a unique ceramic sequence was present. Although there are few solid radiocarbon dates or stratigraphic excavations to lend support to interpretations, it appears that during the Woodland Period there was a widespread and longstanding tradition of cord-marked ceramics in the area south of Macon. The familiar Coastal Plain and Piedmont complexes also appear but, by my reading of the data, they seem to be either minority types on sites that contain predominantly cord-marked pottery or appear in large numbers on only a few sites in the region.

The data available for the Savannah and Oconee Rivers are, in comparison to the Chattahoochee and Ocmulgee, quite incomplete. If we use data developed from work on the Aiken Plateau of South Carolina we see sequences similar to those developed for the Coastal Zone combined with materials from North Georgia and the interior of the Carolinas. (Sassman et al. 1993:41-68). The Savannah, thus, appears to represent a dividing line, or perhaps a magnet, for the interaction of different regional technologies which can be interpreted as a social interaction, similar to that known for the Ocmulgee River, but quite different from the Chattahoochee drainage.

Sub-Period	Chattahoochee	Elm & Ocmulgee	Savannah	Approximate Dates
Late	Wakulla ↑ Chattahoochee	Cord-Marking & Weeden Island ↑ Elm & Ocmulgee	Savannah ↑	900-
	Weeden Island Late			300-900
Middle	Swift Creek Middle	Cord-Marking & Swift Creek	Cord-Marking	0-300
	Early			200BC-0
	Late			
Early	Deptford	Deptford	Deptford	
	Fiber Tempered	Fiber Tempered	Kellog Fiber Tempered	1000BC-200BC

**Table 1: Chronology of Georgia Coastal Plain
As Discussed In Text.
(From Willey 1949; Snow 1977; Sassman et al. 1990)**

Divisions of the Woodland are primarily based on changes in ceramics and because of this are quite arbitrary in nature. It is best to view the Woodland Period as an uneven line of development from the Archaic to the Mississippian. For the purposes of this discussion I have used the three traditional Early, Middle, and Late subdivisions. Each is identified below.

EARLY WOODLAND

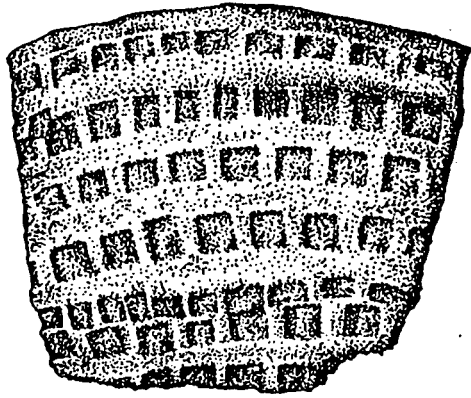
The initial post-Archaic manifestation of the Chattahoochee River is marked by Fiber-Tempered pottery (Clafin 1931; Fairbanks 1942; Stoltman 1974; Bullen and Stoltman 1972). Little of this material has been reported from the Georgia Coastal Plain and none has been excavated in numbers. Reports of some fiber tempered material comes from work on the Chattahoochee but there is never enough to think that it represents a significant

cultural occupation. Fiber tempered vessels are generally molded and not made from the building up of coils. They tend to be open bowls with slightly flaring rims. Surface treatment tends to be quite rough and incised and punctated designs are quite common (Sears and Griffin 1950).

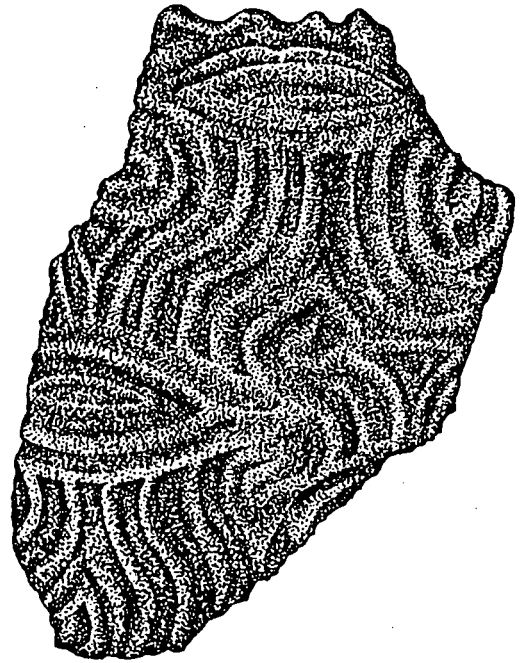
The initial Woodland occupation of any significance is marked by the presence of Deptford Check Stamped and Simple Stamped pottery. Diagnostic elements of the Deptford materials are coiling, simple stamped and check stamped surfaces, conoidal jar shape, tetrapodal supports, and straight or slightly flared rims (Griffin and Sears 1950). Cartersville Check Stamped, which is similar to Deptford but with the checking confined to an area below an undecorated band around the neck, has also been identified from the Chattahoochee (Mistovich and Knight 1986). However, since most of the materials that have been identified as Cartersville Check Stamped are body sherds these identifications are problematic. Deptford and Cartersville vessels are remarkable because of their possession of tetrapodal supports, and plain rims (Caldwell 1958). This allows rim and base sherds to be distinguished from the later Wakulla Check Stamped type which has folded rims and no tetrapods. Generally, the Deptford and Cartersville sherds have a larger check size than what is found with Wakulla but this is not a diagnostic characteristic and it is difficult to identify individual body sherds of these three types with any consistency (see Mistovich and Knight 1986 for a differing opinion).

The Middle Flint River, particularly the area around Lake Blackshear and the Ocmulgee River from the Fall Line to the Big Bend area, follows a pattern similar to that of the Lower Chattahoochee and Flint Rivers. Fiber Tempered and Deptford materials are found but there is also a significant admixture of Piedmont-derived ceramic materials such as Napier, and the later Mississippi Period Etowah, Savannah, and Lamar types. However, these sites and materials appear to be only a minority in the Middle Ocmulgee Basin. Survey reports from the area are generally lacking in statistical breakdowns of collections from individual sites but the overall pattern indicates that there was a significant representation of cord-marked pottery throughout this area. Although radiometric dates are generally lacking Crook (1987) has suggested that much of this material dates to the Woodland Period.

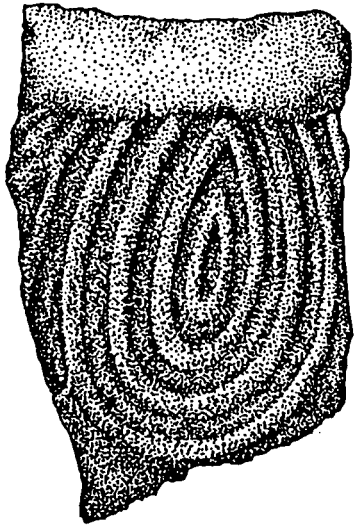
Based on the most intensive study of Coastal Plain cord-marked ceramics to date Snow (1977:31-43) has identified three variants of this kind of material. Arguing "... that the presence of up to seventy percent folded rims typologically separates these cordmarked sites from Wilmington and Savannah Cordmarked sites ..." (1977:31) Snow defines Ocmulgee I, II, and III Cord-Marked as three separate ceramic types. These different kinds of cord-marked pottery can generally be distinguished by differences in rim shape, the nature of the cord marking, and are considered to be geographically distinct. Ocmulgee I Cord-Marked ceramics are found in the area from Abbeville north to, minimally,



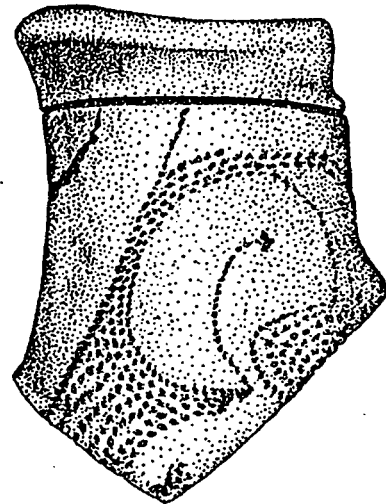
Deptford Check Stamped



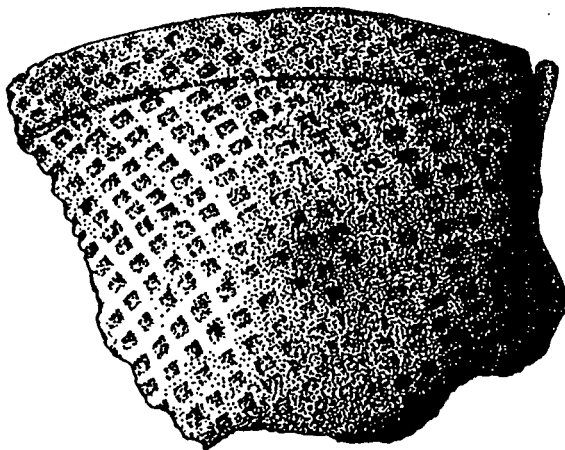
Swift Creek Complicated Stamped (Early)



Swift Creek Complicated Stamped (Late)



Weeden Island Punctated



Wakulla Check Stamped



Inches

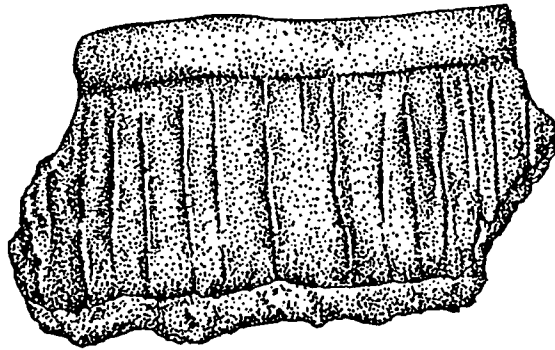
Hawkinsville. Ocmulgee II sites appear to center on Jacksonville, and Ocmulgee III sites are found further down river in the vicinity of Lumber City. The temporal and spacial applicability of these definitions has not been tested in more than a few instances however similar materials have been recovered from the Flint River area indicating that they have a distribution outside of the Ocmulgee drainage.

The Early Woodland on the Savannah River is similar to that found on the Chattahoochee. Fiber Tempered materials are found above the Coastal Zone and are best known from the Stalling's Island site near Augusta (Claflin 1931; Fairbanks 1942). These materials are generally known from river associated middens as are the Refuge and Deptford materials that follow them in time. Sassman et al. (1993) indicate that the Thoms Creek series of ceramics, known from the South Carolina Coast but seldom if ever reported from Georgia, is present as a development from the fiber tempering into Refuge.

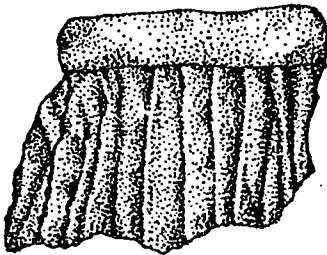
Middle Woodland

The most diagnostic artifacts associated with the Middle Woodland Period in the river drainages being considered are Swift Creek Complicated Stamped ceramics (Kelly and Smith 1975; Kelly 1938) which have their surfaces covered with curvilinear stamped designs. Generally divided into two or three sub-periods (either Early and Late Swift Creek or Early, Middle and Late) this kind of pottery is found in a broad swath across the Georgia Coastal Plain. In a recent conference on Swift Creek Culture held in Macon, Georgia (Williams and Elliott 1993), the original recognition that the application of the stamps to the surface of the vessels became less precise through time was discussed. Rim treatment was felt to be an important indicator of temporal change. Early Swift Creek ceramics, and associated types such as Franklin Plain and the Santa Rosa Series (Willey 1949:366-395), are distinguished by scalloped or "Pie Crust" rims. Middle and Late Swift Creek pots have folded rims with the folds becoming wider as time progresses. Some Early Swift Creek pots may have small (nubbin) tetrapodal supports.

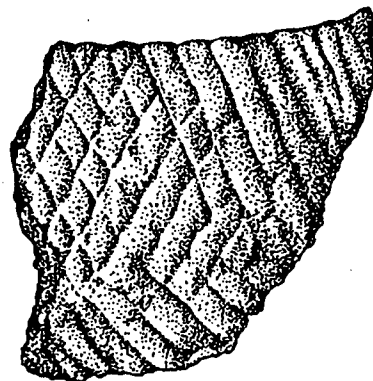
On the Chattahoochee and Lower Flint Rivers Swift Creek ceramics are seldom the statistically most important types found in middens. In the Chattahoochee Basin Early Swift Creek sherds are found with plain ceramics as well as small percentages of Santa Rosa series sherds such as Alligator Bayou Stamped, Basin Bayou Stamped, Santa Rosa Stamped, and Santa Rosa Punctated. Complicated Stamped sherds fitting the type descriptions of Crooked River Complicated Stamped, St. Andrews Complicated Stamped and New River Complicated Stamped, and materials from the Crystal River series such as Crystal River Incised, Crystal River Zoned Red, Crystal River Negative Painted, and Pierce Zoned Red are also found. It must be emphasized that except for the plain ceramics all of these types occur as less than 5% of total collections. Late Swift Creek is found almost entirely with plain sherds. In the succeeding Early Weeden Island period there is an admixture of the Weeden Island series materials such as Keith Incised, Weeden Island



Ocmulgee Cord-Marked I



Ocmulgee Cord-Marked II



Ocmulgee Cord Marked III



Punctated (Willey 1949:396-451) but when this happens the term Early Weeden Island is used instead of Late Swift Creek.

The Crystal River and Santa Rosa series sherds are seldom if ever found in the Middle Flint River and Middle Ocmulgee Basin. Here it is common to find significant percentages of cord-marked pottery (Ocmulgee I, II or III depending on location on the river) with complicated stamping and small percentages of Piedmont-derived Napier Complicated Stamped pottery (Snow 1977; Nielsen 1966).

Along the Savannah, and by projection the Ogeechee, cord-marked pottery, usually classified as Wilmington Cord-Marked, follows Deptford and is found in abundance until the appearance of Mississippian materials. Small percentages of Swift Creek Complicated Stamped and Napier Complicated Stamped are found in association with the cord-marking but they do not appear to be numerically important

Late Woodland

The Late Woodland on the Chattahoochee River is remarkable for the presence of a new series of incised, punctated and red painted ceramics known as Weeden Island. Generally divided into Early and Late sub-periods Weeden Island ceramics are quite distinctive and have striking design similarities to the Troyville-Coles Creek ceramic series from the Lower Mississippi Valley. Early Weeden Island pottery is usually found in association with both plain and Late Swift Creek Complicated Stamped sherds. Percentages vary from site to site but the folded rims of Late Swift Creek are replicated in the Weeden Island series. Found in small percentages in Early Weeden Island middens are minority types such as Crooked River Complicated Stamped (Late Variety), St. Andrews Complicated Stamped (Late Variety), Sun City Complicated Stamped, Thomas Simple Stamped, West Florida Cord-Marked (Late variety), and a temperless pottery similar to the St. Johns series of eastern Florida (Willey 1949:407-408; Steinen 1976a; 1976b; Brose 1984; Sears 1977). Late Weeden Island sees the disappearance of the complicated stamped materials and the reappearance of check stamping in the form of Wakulla Check Stamped. Wakulla can generally be distinguished from Deptford by its folded rims, lack of tetrapodal supports and smaller check size. With the exception of check size, and sometimes check shape, it is difficult to distinguish individual body sherds of the three types of Woodland Period check stamped pottery (Deptford, Cartersville, and Wakulla). It is best to think of these types as points on a developmental continuum beginning with Deptford and continuing through Wakulla and into the Mississippian Period (Schnell and Wright 1993). The end of Late Woodland in the Chattahoochee Basin is marked by a disappearance of most of the incised and punctated materials leaving Wakulla Check Stamped and plain sherds in the middens. Often referred to as the Wakulla Phase this termination of the

Woodland Period can be thought of as a continuation of Weeden Island ceramic and social development.

The Late Woodland Period in the Middle Ocmulgee and Middle Flint Basins has not been studied in any detail. Cord-marked ceramics of the Ocmulgee series appear to be the dominant pottery found in collections. However the ceramic collections from these areas are also noted for the presence, either as "pure" sites or as components of sites, of Weeden Island ceramics, in both sacred and secular contexts, and Piedmont types such as Napier Complicated Stamped (Snow 1977; Nielsen 1966; Schnell and Wright 1993). Generally missing from sites in this area is check stamped pottery. The area immediately south of Macon gives us our best look at the Late Woodland in the Ocmulgee Basin although these patterns may not hold for the area further to the south. Excavations conducted by WPA crews and then supplemented by field work by Florida State University clearly show that the ceramic sequence defined for the Ocmulgee Plateau area (Fairbanks 1956; Kelly 1938) does not apply to the area to its south. At sites such as Cowart's Landing (Hamilton et al. 1975), Tuft Springs (Stoutamire et al. nd.), Stubbs Mound (Williams 1975), Hawkins Point (Zierden 1978) and the Swift Creek Site (Kelly and Smith 1975) there is a clear demonstration of a ceramic sequence similar to that described for the middle Ocmulgee River and not at all like that found to the north.

The Woodland chronology for the Savannah drainage has been most clearly defined from the Aiken Plateau (Sassman et al. 1990) in South Carolina. The developmental sequence follows the Fiber Tempered-Refuge-Deptford sequence defined for the Atlantic Coast with cord-marking becoming dominant after that. There is little Swift Creek material from this area and few recorded occurrences of Weeden Island ceramics or the small check stamped pottery that are so common on the Chattahoochee River.

CHAPTER 4

SIGNIFICANT EXCAVATIONS AND SURVEYS

As mentioned above, the Coastal Plain of Georgia was once the focus of some of the most significant archaeological research in the state. Unfortunately over the past 30 years there has been little work in this area that approaches the scope and importance of the earlier projects. Another problem has been a general lack of coordination between workers on the Coastal Plain. Given the overall acceptance of the cultural chronology developed by Willey (1949) there has been very little actual agreement in either the published or unpublished records as to the development of sub-divisions, phases, regional developmental patterns or even ceramic types with new names being given to existing types when state borders are crossed (see Steinen 1976b for discussions during the Late Woodland along the Chattahoochee).

Chattahoochee Drainage

Moore, Clarence B.

- 1903 Certain Aboriginal Mounds of the Apalachicola River. *Journal of the Academy of Natural Sciences* 12:440-494. Philadelphia.

- 1907 Mounds of the Lower Chattahoochee and Lower Flint Rivers. *Journal of the Academy of Natural Sciences* 13:426-456. Philadelphia.

- 1918 The Northwestern Florida Coast Revisited. *Journal of the Academy of Natural Sciences (Second Series)* 16:514-581. Philadelphia.

Perhaps the most prolific worker in the Chattahoochee River Valley, C. B. Moore has left a mixed legacy for our understanding of the Woodland Period on the Coastal Plain. His overall work plan was to dig mounds and remove the most interesting materials. Moore's interests were those of an antiquarian. He was not interested in anything except the recovery and illustration of materials recovered from burials mounds.

On the positive side, Moore's notes and publications provide good information on site locations and the illustrations of what he selects from the excavations are excellent.

Since Moore dug so many Swift Creek and Weeden Island mounds along the Chattahoochee and Apalachicola Rivers we must use the data that he generated in our interpretations even though we know that it is quite biased in unmeasurable ways.

Willey, Gordon R.

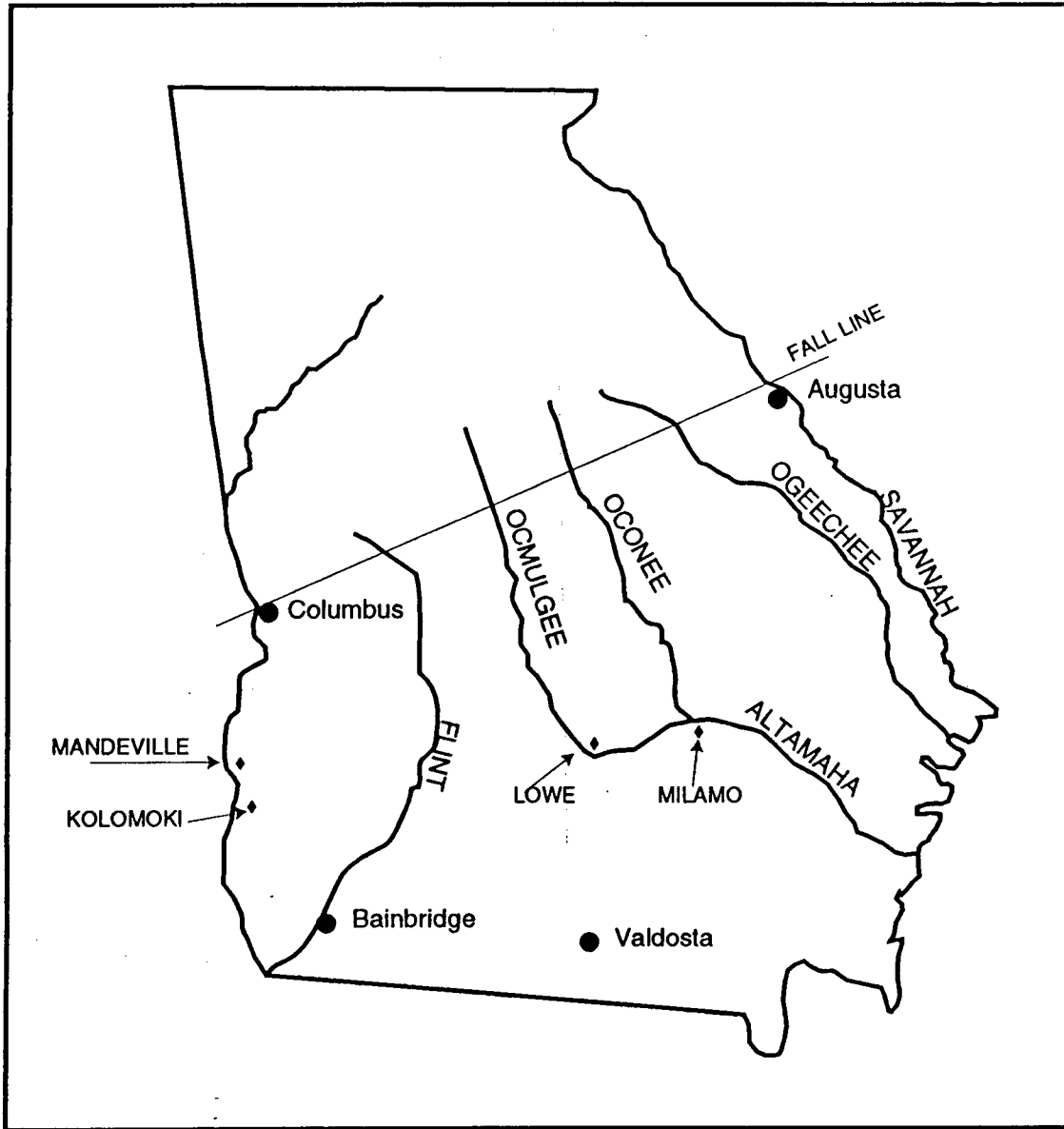
- 1949 *Archaeology of the Florida Gulf Coast.*
 Smithsonian Miscellaneous Collections,
 Volume 113. Washington, D. C..

Probably the single most influential contribution to Southeastern Archaeology that has been published to date this monograph records the results of Willey's work on the Florida Gulf Coast. This well illustrated and clearly written work is important not because of the sites that it records but because it defines the basic ceramic types and chronologies for the Florida, Georgia and Alabama Gulf Coastal Plain area. Willey's chronology is still used today and there have been very few changes made to the Woodland portion of it. Willey did not visit the five Georgia sites discussed in the text (1949:259-261), all of which were recorded by Moore, however he does classify the materials illustrated in Moore's report for these sites into defined types.

Another contribution of this volume is that it presents what can be thought of as one of the earliest attempts to go beyond the description of ceramics and the construction of chronologies. Willey presents reconstructions of the social and economic systems of the archaeological cultures that are described and quite importantly presents a lucid discussion placing them into a broader context of the pan-Southeast.

Sears, William H.

- 1951a *Excavations at Kolomoki, Season 1-1948.*
 University of Georgia Series in Anthropology
 2. Athens.
- 1951b *Excavations at Kolomoki, Season II: Mound E.*
 University of Georgia Series in
 Anthropology 3. Athens.
- 1953 *Excavations at Kolomoki, Seasons III and IV:*
 Mound D. University of Georgia Series in
 Anthropology 4. Athens.



Map 3. Rivers of the Coastal Plain
Showing Important Sites

- 1956 *Excavations at Kolomoki: Final Report.*
University of Georgia Series
in Anthropology 5. Athens.
- 1964 The Southeastern United States. In
Prehistoric Man in the New World, edited by
J. D. Jennings and E. Norbeck, pp. 259-290.
University of Chicago Press, Chicago.
- 1977 Prehistoric Culture Areas and Culture Change
on the Gulf Coastal Plain. In *For The*
Director: Research Essays in Honor of James
B. Griffin. Anthropological Papers, Museum
of Anthropology, University of Michigan,
Ann Arbor.
- 1992 Mea culpa. *Southeastern Archaeology*
11(1):66-71.

Sears' work at the Kolomoki site in Early County and his survey of the Gulf Coastal Plain has provided some of the most important data for our understanding of the Woodland Period as well as some of the more controversial interpretations. Kolomoki is a large multi-mound site that has all the appearances of a Mississippian Period civic center -- elaborate burial mounds, large pyramid shaped mound, and crescent shaped village area. The ceramics from the village indicate a Late Swift Creek and Early Weeden Island occupation as do the burial mounds. Sears has argued that at the Kolomoki site, and for an undefined geographic area surrounding it, complicated stamping, in this case Kolomoki Complicated Stamped, a type which is a regional development of Late Swift Creek Complicated Stamped, actually post-dated Early Weeden Island, and complicated stamping was never replaced by check stamping. This interpretation obviously differs from the widely accepted chronology defined by Willey. In a recent article Sears' has withdrawn this controversial interpretation of the Kolomoki site and ceramic sequences in South Georgia (1992).

The Kolomoki excavations represent some of the most intensive work that has been conducted on a Woodland Period civic center in Georgia. The mound excavations were designed to reconstruct the ceremonies that produced them and the work in the village area was designed to define the aerial extent of the midden and reconstruct the cultural chronology of the site. Because of extensive sheet erosion and the methods that were used Sears uncovered little information on economic systems or other aspects of every day life.

Caldwell, Joseph R.

- nd. Report of Excavations at Fairchild's Landing and Hare's Landing, Seminole County, Georgia, edited by Betty A. Smith. Report Submitted to the National Park Service, Tallahassee.

The work at Fairchild's Landing was conducted between 1949 and 1952. Originally discovered by A.R. Kelly and Frank S. Jones this site was excavated as part of the River Basin Salvage Program by Joseph Caldwell. The Fairchild's Landing site dates to the Late Swift Creek, Early Weeden Island and Wakulla periods. Late Weeden Island is missing at Fairchild's Landing proper although the near by Hares Landing site dates to this period. Of importance here is that the ceramic sequence defined by Willey from the Gulf Coast is present in Southwest Georgia and that Sears' arguments for a lack of Wakulla Check Stamped in this area is not supported.

The contribution of this work has been greatly reduced by its lack of publication although the edited version of the excavation report was prepared by Betty Smith for the National Park Service in 1978. This report presents details of the ceramic sequences at the sites and a discussion of ceramics in general. Caldwell presents the definitions of several new pottery types, including Fairchild's Complicated Stamped and Hares Complicated Stamped, which appear to have never been used again. Caldwell's identification of design motifs associated with Kolomoki Complicated Stamped appear, in general, to be correct. However he does not discuss the presence of flat bases on the vessels an aspect of the Kolomoki Complicated Stamped type that Sears feels is important (Personal Communication).

Kellar, James H., A. R. Kelly and Edward McMichael
1962 The Mandeville Site in Southwest Georgia.
American Antiquity 27:336-355.

Smith, Betty A.
1975 A Re-analysis of the Mandeville Site, 9 Cla 1, Focusing On It's Internal History and External Relations. Ph.D. Dissertation, University of Georgia, Athens.

- 1979 The Hopewell Connection in Southwest Georgia. In David Brose and N'omi Greber eds. *Hopewell Archaeology: The Chillicothe Conference*. The Kent State University Press, Kent.

Mandeville is a ceremonial site that dates to the Late Deptford and Early Swift Creek periods. There are two mounds (A & B) and a village area. Mound A, a truncated earthen structure, was approximately 240 x 170 feet at its base and 14 feet high while Mound B, also known as the Griffith Mound, was a burial structure. The final cap on Mound A is Mississippian but the interior layers date to the Deptford and Early Swift Creek periods. Associated ceramics, especially tetrapods, check stamping, and complicated stamping with scalloped rims indicate that this structure dates to the Late Deptford and Early Swift Creek periods. A total of 23 10 x 10 foot squares were excavated and 10,131 sherds were recovered from a midden that was up to 3.5 feet thick. Most of the ceramics dated to the Mississippian occupation and the Woodland sherds were mostly check stamped and complicated stamped (Betty Smith Personal Communication). No sub-surface features or structures were recorded during the excavations.

The Woodland occupation at Mandeville, which appears to be primarily a ceremonial presence, predates Kolomoki and Fairchild's Landing. I have suggested elsewhere (Steinen 1993) that Mandeville and Kolomoki represent a developmental continuum of ceremonialism in Southwest Georgia that is associated with an increased centralization of socio-political control culminating in a proto-chiefdom centered on Kolomoki. Aside from individual burial mounds there are no known Late Weeden Island or Wakulla period ceremonial/civic sites in Georgia or Florida. It is not until the development of Cemochechobee, a Roods Phase site to the north of Kolomoki, that we see the next expression of centralized socio-political control along the lower reaches of the Chattahoochee River.

The importance of the Mandeville site reports are that they outline the earlier stages of the development of centralized socio-political control in the Lower Chattahoochee Valley. It is interesting that unlike Kolomoki there were few indications of a residential village to support the ceremonial activities. This is somewhat similar to the vacant Hopewell ceremonial centers in the Midwest which are the temporal and somewhat the cultural/ceremonial analogs of Mandeville.

 Huscher, Harold A.

- 1959a Appraisal of the Archaeological Resources of the Columbia Dam and Lock Area, Chattahoochee River, Alabama and Georgia River Basin Surveys, Smithsonian Institution, Washington, D. C.
- 1959b Appraisal of the Archaeological Resources of the Walter F. George Reservoir Area, Chattahoochee River, Alabama and Georgia. River Basin Surveys, Smithsonian Institution, Washington, D. C..

During the early 1950's Herald Huscher conducted surveys of the Walter F. George Reservoir and the Columbia Lock and Dam Project. The results of this work have not been published but microfilm copies of them are in existence. While these surveys have had little direct impact on our understanding of the Woodland Period because of their general lack of distribution, some of the sites located by Huscher have been excavated and some of the results of this work have been published.

- Kelly, A. R., Richard Nonas, Bettye Broyles, Clemens DeBaillou, David W. Chase and Frank T. Schnell, Jr.
 1962 *Survey of Archaeological Sites in Clay and Quitman Counties, Georgia*. University of Georgia. Laboratory of Archaeology Series, Report No. 5. Athens.

This monograph reports on the test excavation of seven sites in the area immediately north of Fort Gaines. This report is of interest because the Weeden Island to Wakulla development is confirmed for the area north of Kolomoki. Aspects of the sites other than location, ceramics, and lithics are not discussed but this is not surprising given the date of the work. Given the extent of the work discussed there is a surprising lack of detail in these reports.

Kelly, Arthur R

1950a A Survey of the Lower Flint and
Chattahoochee Rivers. *Early Georgia*
1:27-33.

1950b *A Weeden Island Burial Mound in Decatur
County, Georgia; the Lake Douglas Mound,
9Dr21.* University of Georgia Laboratory of
Archaeology Series, Report No. 1. Athens.

These two publications present the results of a survey and an excavation along the southern most stretches of the Chattahoochee River. As with other work in the area the ceramic sequence for the Woodland Period defined by Willey is supported. Of special interest is Kelly's discussion of the Lake Douglas Mound, an Late Weeden Island burial mound, in Decatur County. This mound, one of the few Weeden Island mounds to be excavated in Georgia since Moore's time, contained interesting check stamped vessels that had the shape of round bottomed elongated vases. This distinct vessel form is also found at the Balfour Mound in Grady County. Kelly also presents a discussion of the development of Weeden Island culture in the report on the Lake Douglas Mound.

McMichael, Edward V. and James Kellar

1960 *Archaeological Salvage in the
Oliver Basin.* University of Georgia
Laboratory of Archaeology Series No. 2.
Athens.

The Oliver Basin lies immediately north of the Fall Line on the Chattahoochee River. As such it is beyond the geographic limits of this study. The Oliver Basin is interesting because Fiber Tempered and Swift Creek sherds were found on almost all of the 13 sites that were tested but Weeden Island materials were absent. Also present are significant numbers of Etowah sherds, a North Georgia type, and Averett materials which may be the regional analog to the Weeden Island coastal plain materials (Chase 1959).

White, Nancy Marie with Stephanie J. Belovich and David S.

Brose

- 1981 *Archaeological Survey at Lake Seminole.*
Cleveland Museum of Natural History
Archaeological Research Archaeological
Report Number 29, Cleveland.

Belovich, Stephanie, David S. Brose and Russell Weisman
with Nancy M. White

- 1983 *Archaeological Survey of George W. Andrews
Lake, Alabama and Georgia.* Archaeological
Research Report 37. Cleveland Museum of
Natural History, Cleveland.

Bullen, Ripley P.

- 1950 An Archaeological Survey of the Chattahoochee
River Valley in Florida. *Journal of the
Washington Academy of Sciences* 40:101-125.
- 1958 Six Sites Near the Chattahoochee River in the
Jim Woodruff Reservoir Area, Florida. River
Basin Surveys Papers, No. 14. *Bureau of
American Ethnology Bulletin* 169, pp. 315-58,
Smithsonian Institution, Washington, D. C..

These reports document the survey of Lake Seminole which is the southern terminus of the Chattahoochee River, Spring Creek, and the Flint River as well as the George W. Andrews Lake which is just north of Lake Seminole. Several hundred sites were recorded which range from 20th. Century structures to the Early Archaic. Woodland Period sites are numerous and White et al. report interesting shifts in settlement patterns through time. No sites were tested during the later surveys although Bullen tested several. These reports present clear discussions of the archaeology and history of the Lake Seminole area. The only real problem with the Cleveland Museum reports, other than some quibbling with interpretations of culture process, are the very early dates assigned to Deptford materials (White et al. 1981:Table 18).

Flint Drainage

Schnell, Frank T.

- 1975 An Archaeological Survey of Lake Blackshear
Southeastern Archaeological Conference
Bulletin 18:117-122.

Schnell presents an interesting look at what is going on in the middle Flint area. The ceramics that he discusses are similar to the Ocmulgee series described by Snow (1977). He shows that Woodland forms of social and economic organization persisted well into the post A.D. 1,000 period in this area.

Ocmulgee Drainage

Kelly, A. R.

- 1938 A Preliminary Report on Archaeological
 Exploration at Macon, Georgia. *Bureau of*
American Ethnology Bulletin 119.
 Smithsonian Institution, Washington, D. C..

Kelly reports on the WPA excavations at the Ocmulgee National Monument and surrounding sites. This, even though it is missing any sherd counts or detailed drawings, is an important report because it presents the only published first hand description of the work conducted at the site. Of particular interest is Kelly's discussion of ceramics which include currently unused terms such as Delta Complicated Stamped (now Napier) and a discussion of Vining Simple Stamped, a term that, after years of dormancy, has recently re-entered our vocabulary (Elliott and Wynn 1991).

Kelly, Arthur R and Betty A. Smith

- 1975 The Swift Creek Site, 9 BI 3, Macon, Georgia.
 Report on File, Laboratory of Archaeology,
 Department of Anthropology, University
 of Georgia, Athens, Georgia.

The Swift Creek Site, like Ocmulgee, is one of the most discussed yet under-reported sites in Georgia. Kelly's discussion of Swift Creek ceramics and the Swift Creek site was, until 1975, never substantiated by hard data. This report, edited by Betty A. Smith, provides the details of ceramic development, features, lithics and the various other minutia that allow us to understand the nuances of this site. Of particular interest are the comments on changing characteristics of Swift Creek ceramics through time (rim form, base form,

stamp designs, location of stamping etc.) and discussions of Swift Creek distributions. In a lengthy appendix to the report Kelly discusses Swift Creek over a broad geographic range from the Fall Line north to Fulton County and south into the Coastal Plain. This discussion is interesting and useful because it includes previously undiscussed materials and sites.

Fairbanks, Charles

1956 *Archaeology of the Funeral Mound, Ocmulgee National Monument, Georgia.* Archaeological Research Series Number 3, National Park Service, Washington, D.C.

Fairbank's report on the Funeral Mound excavations presents the most detailed and concise discussion of the Ocmulgee National Monument and its ceramic sequence. Even though the Funeral Mound was a Mississippian Period structure Fairbanks charts the Woodland Period materials and discusses them in some detail (1956:Figure 6; Table 1; 40-42) and clearly states that there was a developmental sequence consisting of Fiber Tempered (Stalling's Island) to Dunlap Fabric Marked to Mossy Oak Simple Stamped to Swift Creek with Napier Complicated Stamped being the final *in situ* phase of the Woodland development (1956:39). The following Macon Plateau, Lamar and Ocmulgee Fields periods are thought to be intrusive Mississippian and Historic populations. This is of interest because this sequence parallels that of the Piedmont and North Georgia and not that of the the Coastal Plain which is discussed above. This is interesting because Swift Creek Complicated Stamped ceramics, and to a much lesser extent, Napier Complicated Stamped (which Kelly argues is associated with Late Swift Creek materials), are the only common types found. This is particularly important because of patterns found further south along the Ocmulgee River.

Hamilton, Christopher E., James Lauro and David E.

Swindell, III

1975 Analysis of Material Culture Remains From Cowart's Landing Site. Report on File, Southeast Archaeology Center, Florida State University, Tallahassee.

Stoutamire, James W., Chad O. Braley, Thomas R. Gest
and Patricia A. Logan

nd The Tuft Springs #1 (13 Bi 25) and #2
(13 Bi 19) Sites in Central Georgia
Prehistory. Report on File, Southeast
Archaeology Center, Florida
State University, Tallahassee.

Williams, Mark

1975 Stubbs Mound in Central Georgia Prehistory.
Report on File, Southeast Archaeology
Center, Florida State University, Tallahassee.

Zierden, Martha A.

1978 The Hawkins Point Site (15 Bi 21) in Central
Georgia Prehistory. Report on File, Southeast
Archaeology Center, Florida State University,
Tallahassee.

The W.P.A. excavations of sites south of Macon have provided a good deal of information concerning ceramic sequences along the Ocmulgee. These reports, along with the Kelly and Smith (1975) report on the Swift Creek site, provide some of the missing details concerning ceramic (cultural) development south of Macon. It is unfortunate that this data has not been published and is not available on a larger scale. Of interest here is the presence of Swift Creek ceramics at almost all of the sites that are discussed. Williams suggests that at Stubbs Mound there was a direct development of Lamar ceramics from Late Swift Creek (1975:73-111, 133). Of particular interest here is the presence of identifiable Deptford sherds and very little of the Mossy Oak and Dunlap Fabric Marked materials reported from the Macon Plateau and some other sites in the area. There is also a complete absence of the ubiquitous cord-marked pottery from further south on the river (Snow 1977).

Snow, Frankie

1977 *An Archaeological Survey of the Ocmulgee
Big Bend Region*. Occasional Papers from
South Georgia No. 3, South Georgia College,
Douglas.

Snow, Frankie and Keith Stephenson

- 1990 Hartford: A 4th-Century Swift Creek Mound Site in the Interior Coastal Plain of Georgia. Paper Presented at the 47th Annual Meeting of the Southeastern Archaeological Conference, Mobile.

Stephenson, Keith, John E. Worth and Frankie Snow

- 1990 A Savannah Period Mound in the Upper-Interior Coastal Plain of Georgia. *Early Georgia* 8 (1&2):41-64).

Bracken, William L, Frankie Snow, Chris Trowel and Nancy White

- 1986 Archaeological Investigations in Telfair County, Georgia, 1985. Report Submitted to the Georgia Department of Natural Resources. Atlanta.

Blanton, Dennis

- 1987 Archaeological Testing and Survey at Robins Air Force Base, Warner Robins, Georgia. Report on File, Office of the State Archaeologist, Carrollton, Georgia.

Nielsen, Jerry

- 1966 Preliminary Report of an Archaeological Survey of the Heart of Georgia Planning and Development Commission Area. Report on File, Office of the State Archaeologist, West Georgia College, Carrollton, Georgia.

Crook, Morgan R.

- 1987 *Low Site Report: A Contribution to Archaeology of the Georgia Coastal Plain.* Georgia Department of Transportation, Office of Environmental Analysis, Occasional Papers in Cultural Resource Management #3, Atlanta.

The Ocmulgee Basin south of Macon has received relatively little organized archaeological research through the years. These reports and publications provide the basic information on the distribution of ceramics in the area. One of the pressing problems here is the chronological placement of the commonly found cord-marked pottery. Data and

interpretations are presented that this material post-dates Swift Creek. Other researchers including Crook and myself have argued that the cord-marked materials were made and used throughout the Woodland and into the Mississippian Period.

Savannah Drainage

Clafin, William H.

1931 *The Stalling's Island Mound, Columbia County, Georgia.* Peabody Museum of American Archaeology and Ethnology Papers 14(1).

Fairbanks, Charles H.

1942 The Taxonomic Position of Stalling's Island, Georgia. *American Antiquity* 7(3):223-231.

The Stalling's Island site has provided some of the more interesting information on the Early Woodland in the Southeast. This stratified shell mound on an island in the Savannah just above Augusta shows aspects of ceramic development and paleo-economies. Clafin's initial work and Fairbank's following study clearly demonstrate the temporal position of fiber tempered ceramics in the interior.

Stoltman, James B.

1974 *Groton Plantation: An Archaeological Study of a South Carolina Locality.* Peabody Museum Monographs No. 1, Harvard University. Cambridge..

Sassman, Kenneth E with Mark J. Brooks, Glen T. Hanson and David G. Anderson.

1990 *Native American Prehistory of the Middle Savannah River Valley.* *Savannah River Archaeological Research Papers* 1, Occasional Papers of the Savannah River Archaeological Research Program, South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia.

Sassman, Kenneth E with Mark J. Brooks, David Colin Crass,
 William Green, George S. Lewis and D. Keith Stephenson
 1993 *Early Woodland Settlement in the Aiken
 Plateau*. Savannah River Archaeological
 Research Papers 3, Occasional Papers of the
 Savannah River Archaeological Research
 Program, South Carolina Institute of
 Archaeology and Anthropology, University of
 South Carolina, Columbia.

We know little about the Woodland on the Georgia Coastal Plain along the Savannah River. Fortunately work at the Savannah River Site by the University of South Carolina can be used to fill in our gaps. The extensive aerial study of this large tract of land has allowed for the development of detailed ceramic chronologies and models of changing settlement patterns through time. The data provided by this work can be used as hypotheses for testing similar patterns along the Georgia side of the Savannah as well as the Ogeechee.

Sassman et al.'s (1990; 1993) documentation of shifting land-use patterns during the Woodland Period is of great interest because of the detail it provides as well as the fact that there are no documented burial mounds or civic centers similar to Mandeville and Kolomoki known.

Other

Steinen, Karl T.

1989 The Balfour Mound and Weeden Island Culture
 in South Georgia. *Early Georgia* 17
 (1&2):1-23.

Steinen, Karl T. and Thomas Crawford

1990 The Sonny Lee Site: Shifting Sands and
 Archaeological Site Interpretation on the
 Gulf Coastal Plain. *Early Georgia* 18
 (1&2):65-81.

These two papers discuss work in the Ochlockonee River drainage. The Balfour Mound was a small Late Weeden Island burial mound that contained five interments (in three locations) as well as several dozen vessels -- none of which are effigies. Of interest is the presence of two complete "tall vase" forms, one Wakulla Check Stamped and the other Crooked River Complicated Stamped, which are, in form but not surface treatment, similar to vessels recovered by Kelly from the Lake Douglas Mound. The Sonny Lee site is a small Late Weeden Island "encampment" on a high bluff overlooking the Ochlockonee

River. Little of importance concerning details of Weeden Island lifeways was found during the excavations of this small site.

CHAPTER 5

MIDDENS, MOUNDS, AND THE SOCIAL ARCHAEOLOGY OF THE WOODLAND PERIOD ON THE COASTAL PLAIN OF GEORGIA

Introduction

Our understanding of how Woodland Period societies on the Coastal Plain of Georgia were organized is less complete than is our understanding of Woodland chronologies. With few exceptions the work that has been conducted over the years has not been designed to answer questions of how these societies were structured although there has been much speculation concerning this. However, one thing can be stated with certainty and that is a single model cannot be developed for all the drainages and for all of the different sub-periods.

We normally recognize increasing social complexity in the archaeological record through the presence of a number of artifact categories (ie symbols representing a hierarchical status structure), an increasing complexity of community interdependence, increased structure within individual sites, recognizable differences in burial patterns, the development of burial mounds with elaborate inclusions, and the presence of truncated flat-sided mounds associated with a formal plaza area and crescent shaped village. These features do not suddenly appear as a total unit. With the few exceptional cases of population migrations which bring with them fully developed ranked societies these are incremental features and are developed over a long period of time in response to, among other factors, growing population size and density.

If we view the Woodland on the Coastal Plain as a period of transition from the egalitarian societies of the Archaic to the ranked societies of the Mississippian this incremental change is evident. This is not to say that there was a uniform unilineal pattern of development across the Coastal Plain. Some societies developed faster than others, and some may never have made significant social changes from the preceding Archaic Period while developing Woodland technological systems such as pottery.

Early Woodland: Fiber Tempered and Deptford

The initial phases of the Woodland show very few differences from the Archaic when looking at indicators of social differentiation. Site structure, burial patterns (or lack of them), site distributions, site hierarchies, and artifact types and distributions are all indicative of egalitarian social organization. It is with the advent of Deptford that we begin to see significant differences developing.

Most of our knowledge of Deptford culture comes from work along the coastal strand of Florida and Georgia (Milanich 1971; 1973). There are few Deptford middens known from the interior of the Georgia Coastal Plain the majority of which are located adjacent to the present river channels or oxbow lakes on their floodplains (White et al. 1981:625-633; Snow 1977). Only a few Deptford sites have been documented along the creeks that drain into the major rivers of the Coastal Plain. This pattern may be a reflection of a bias in our survey data, however it is repeated along the Alabama side of the Chattahoochee and in inland areas of the Alabama Coastal Plain (DeJarnette 1975:31).

Indications of ceremonial activities for Deptford also show a bias towards the coast. Based on an examination of data generated by C. B. Moore as well as more recent materials Sears defined the Yent ceremonial complex (1962). This is a Hopewellian related complex that is the ceremonial expression of Deptford culture. Characteristics of the Yent complex include continuous use burial mounds that contain copper pan pipes, elongated plummets, cut animal jaws, cymbal shaped copper ornaments, monitor pipes, functional tetrapods on vessels, unique vessel forms, Crystal River series ceramics, and "T" shaped lips on bowls. One distinguishing characteristics of Yent Complex mounds is that the vessels they contain are usually quite different from those found in associated middens. The Mandeville site is the only known expression of Yent ceremonialism in the interior of Georgia. As discussed earlier little of the midden material from this site dates to the Woodland Period but the earlier layers of the truncated mound and the burial mound do. Moore's reports do not include any burial mounds that can be classified as belonging to the Deptford/Yent period.

Other drainages in the interior provide little information about Deptford occupations. The Ocmulgee-Altamaha drainage shows a pattern where classic Deptford Check Stamped materials are found in concentrations only within 50 miles of the coast. The interior sites along the Ocmulgee above Lumber City are noted for having a predominance of simple stamped pottery that Snow classifies as Deptford. He also notes that "rouletted" (rocker stamped?) sherds are found in this area and that similar pottery is not reported from coastal sites. These materials may be related to the temporally later Santa Rosa series which includes rocker stamping (Willey 1949:372) and were included with Deptford as an error in classifying surface collections, or perhaps they represent an addition to a Deptford complex that persisted longer along the Ocmulgee River than it did the Florida Coast. Snow lists 98 sites in the Ocmulgee Big Bend area with Deptford-Mossy Oak materials on them although he presents numerical data from only one (Bridges Field 9WI16) where about 21% of the materials are classified as Deptford in the mixed surface collection that ranges from Fiber Tempered Plain (3.8%) through Lamar Complicated Stamped (.08%), Ocmulgee III Cord-marked (23.6%), and plain or non-diagnostic (44.6%). No definite ceremonial structures have been recorded, however Snow mentions that at Rocky Springs Landing (9LS22) he observed a dome-shaped mound in a pasture. Associated (but not collected) ceramics "...seemed to have been predominantly simple stamped. Some linear check stamped sherds were seen. Minor quantities of cord-marked, complicated stamped, fabric

impressed, and plain fiber tempered potsherds were viewed. Tetrapodal supports were also present (Snow 1977:20)". He also mentions that similar materials were observed at the Fish Trap Cut site (9LS2) in Laurens County. These sherds were found "...between the southern platform mound and the Oconee River... (Snow 1977:21)." Nielsen (1966) reports on test excavations at 9LS2 and does not mention a platform mound but he does report excavating a single test unit adjacent to a conical mound that produced only scanty materials most of which were Deptford. In his survey report Nielsen (1966) lists fewer than 150 Deptford sherds were recovered from 15 sites. This information from the Ocmulgee is interesting because it demonstrates that there is a definite inland presence of Deptford as far north as Laurens County and that there may be an associated ceremonial complex with it.

Along the Savannah, as shown from the work at the Savannah River Site, the Fiber Tempered--Refuge--Deptford sequence known from the coast continues. Deptford village sites are known but there are no known Deptford burial mounds or ceremonial centers similar to Mandeville on the Chattahoochee. It is interesting that the Refuge series of ceramics is present on the Savannah but not the Ocmulgee, Flint or Chattahoochee, and that there are no Deptford burial mounds. This suggests that the Woodland social systems on the Savannah were not evolving as quickly as those on Chattahoochee. Indeed, the lack of these burial structures on the Ocmulgee and Flint as well as the Savannah indicates that the Chattahoochee Drainage was the center of the development of the most complex social systems on the Coastal Plain of Georgia throughout the Woodland Period.

Milanich has suggested that this relative scarcity of Deptford sites, especially mounds, in the interior indicates that the interior Coastal Plain was only lightly occupied during this period (1971; 1973). His argument that Deptford culture was oriented towards the coastal strand and only used the interior for seasonal exploitation would seem to be supported by data on site distributions and explain the overall lack of sites in the interior. However as White et al. (1981) point out this coastal bias in site distributions may well be a result of sampling error. Sassman et al. have argued, based on the work at the Savannah River Site, that Deptford on the Savannah included intensive occupation of the Coastal Plain environment and not just seasonal forays from the coastal strand (Sassman et al. 1990:13). If the Savannah River Site data is applicable to other drainages we can expect that patterns of Deptford adaptation to the Coastal Plain environment were quite complex and are not simply a low-intensity seasonal occupation. However, until survey coverage of the interior has been expanded to a level similar to that of the coastal areas we cannot with any certainty make conclusions concerning seasonal movements or permanent occupation.

Middle Woodland: Swift Creek and Cord-Marking

While the Deptford occupation of the interior is only poorly known, the succeeding Swift Creek occupation is well documented. Numerous Swift Creek mounds and villages are known along the Chattahoochee (Moore 1903; 1907; 1918; Steinen 1976a; 1976b) and

the Mandeville site dates to the transition from Deptford to Early Swift Creek (Smith 1979). Nielsen, Snow, and others report Swift Creek village and mound sites along the Ocmulgee (Snow 1977; Nielsen 1966). The Oconee and Savannah, however, have relatively few sites of this wide-spread archaeological culture present (Sassman et al. 1990).

The identifiable sub-periods of Swift Creek are not equally represented in the interior as they are along the coast. Few Early Swift Creek sites, either villages or mounds, have been documented (Willey 1949:367). Generally found along the major river channels and occasionally along feeder streams these sites occupy the same environmental zones of the preceding Deptford and later Woodland and Mississippian cultures.

As noted earlier Willey's original definition of Early Swift Creek includes the presence of Franklin Plain ceramics (distinguishable from sand tempered plain sherds by notched and scalloped rims instead of plain rims), the Santa Rosa series and a few nubbin tetrapods. Noticeably absent from the Early Swift Creek deposits is check stamped pottery which is dominant during the Deptford Period and re-appears as Wakulla Check Stamped hundreds of years later.

The paucity of Early Swift Creek sites, mounds or villages, along the Chattahoochee mirrors the Deptford patterns. The identified Early Swift Creek mounds fit into what Sears has identified as the Green Point Complex (1962). This is a development of ceremonialism from the preceding Deptford associated Yent Complex. It is marked by ceramic deposits on the east sides of burial mounds that contain pots that are similar to those found in Early Swift Creek middens, nubbin tetrapods, and an attenuation of the exotica (pan pipes, plummets, cut animal jaws etc.) associated with the Yent Complex. If Yent was a participant in the pan-Woodland Hopewell system, then Green Point, and by extension, the Early Swift Creek cultures along the Chattahoochee, were part of a Coastal Plain tradition of post-Hopewell social interaction. The overall burial patterns indicate social systems that were no more advanced than the earlier Deptford/Hopewell patterns and due to the lack of an identifiable civic center similar to Mandeville they may represent an actual devolution of social complexity (Steinen 1993).

Late Swift Creek represents a significant change from Early Swift Creek and Deptford. The number of middens and mounds increase, the complexity of the mounds increases, there is the re-emergence of a civic center (Kolomoki) with a formalized crescent shaped midden at this time, and all indications point towards the emergence of what can be thought of as a pre-chieftdom level of socio-political organization (Steinen 1993). Late Swift Creek burial mounds are distinguished by east side ceramic deposits (a feature that began with the Green Point/Early Swift Creek ceremonialism and continued through the Weeden Island Period) that feature Late Swift Creek (including what Sears identified as Kolomoki Complicated Stamped) pots, elaborate effigy vessels, and plain ceramics but none of the Santa Rosa series associated with the Early Swift Creek/Green Point mounds

(1962). If Sears' earlier ideas that the Green Point Complex represents a pan-Gulf Coastal Plain adjustment to a post-Hopewell time is correct than the lack of pots from the western portions of the Florida Panhandle and the Lower Valley in Late Swift Creek mounds may indicate a further shrinking of a previously wide spread ceremonial interaction systems. This in turn may have resulted in the emergence of the centralized socio-political system at Kolomoki that focused social and political activities, at least along a portion of the Chattahoochee corridor, inward instead of having a much wider geographical focus.

Sears (1968) argued that Kolomoki was the center of a large polity that occupied the area from the Kolomoki site in the north, southward to the Gulf Coast, as far west as Mobile Bay and as far east as the Big Bend area of Florida. This projected size for a Kolomoki chiefdom is simply too large to have been successfully administered from a single civic center located on its northern periphery. Analyses of Mississippian chiefdoms indicate that they were much smaller in area than Sears' reconstruction, generally only about 23-75 kilometers from one end to another (Scarry and Payne 1986:83; Smith and Kowalewski 1980:6), and given the level of organization attributed to Mississippian chiefdoms we can say that if there was a Kolomoki chiefdom, it was much smaller in size than originally thought.

It is difficult to determine with any certainty if the Swift Creek, both Early and Late, patterns observed for the Chattahoochee are repeated along the other drainages of the Coastal Plain. Because of a general lack of survey or the way in which data has been reported (or not reported), we cannot make many generalizations. The Swift Creek site, immediately south of Macon, shows the full development of Early through Late Swift Creek ceramics. Only a few reported sites north of the Big Bend area of the Ocmulgee River have reported concentrations of Swift Creek materials (Nielsen 1966). The recently reported excavations at the Hartford site (Snow 1993; Snow and Stephenson 1990) demonstrate that there are Middle and Late Swift Creek sites as far north as central Pulaski County. The number of these sites increases along the more southern portions of the Ocmulgee River. Snow reports that 128 of the 320 sites that he identified in the Ocmulgee Big Bend area had Swift Creek materials on them (1977:65-86). He states that Early Swift Creek is scanty (only three site recognized) but Late Swift Creek along with a small amount of Weeden Island pottery is "consistently present" (Snow 1977:21,60) and that most "...sites appear as small campsites used intermittently from year to year when seasonal food resources were ready to be gathered. A few sites appear as central or base sites, having a more permanent function in view of the greater quantity of cultural debris and midden" (Snow 1977:22). The Milamo and Telfair Mound sites demonstrate that there are significant concentrations of Swift Creek materials along the Ocmulgee, most collections, however, appear to be small (Kelly and Smith 1975; Nielsen 1966; Snow 1977).

In an overview of Swift Creek on the Savannah Elliott (1993) compiled the known distribution of this material (which is not broken down into Early and Late). He says that

of the over 1000 sites identified on the Fort Gordon reservation near Augusta no Swift Creek pottery was identified. Further south along the Savannah Swift Creek sites and materials are rare but existent, most reported as single sherds. He says that Swift Creek pottery appears as a minority ware on only 8 sites at the Savannah River Site, is unknown from Groton Plantation, both of which are in South Carolina, and only a few sherds are reported from other sites.

These patterns are interesting because they appear to support an increase in overall population through time along the Chattahoochee but not other river systems. The paucity of Deptford and Early Swift Creek sites is in stark contrast to the number of recorded Late Swift Creek middens and mounds on the Chattahoochee. The elaboration of burial furniture, a seeming similarity in burial patterns (the east side ceramic deposits, complicated stamped pots, and plain pots), and an overall increase in the number of middens and mounds all point toward a system of regional societies centered on a limited number of villages. Snow's research on the nature and distribution of Swift Creek ceramic designs indicates that there were extensive networks along which either Swift Creek ceramics or the paddles that were used to produce them moved (Snow 1993). The nature of this movement is, however, unknown but we can say with certainty that the individual Late Swift Creek communities, be they individual households or large sites such as Kolomoki, did not exist in isolation and that the different river systems, particularly the Ocmulgee and Chattahoochee, were in contact.

The presence of Late Swift Creek burial mounds, village middens, and the elaborate Kolomoki site with its crescent shaped village area, burial mounds and temple mound indicate that the Late Swift Creek period in the Chattahoochee drainage developed a socio-political system more complex than what is found with Late Swift Creek populations in other drainages. The number of recorded mound sites and village middens along the Flint, Ocmulgee, Oconee, and Savannah do not come close to those found on the Chattahoochee and a parallel to the Kolomoki site is also not found. Elsewhere (Steinen 1993) I have commented on this development and hypothesized that it was made possible by the adoption of maize horticulture in the economy of the Kolomoki society. This would account for the increase in population that is documented during the Late Swift Creek period and the development of what appears to be a proto-Chiefdom level of political organization. Further, I suggested that because of the lack of large contiguous areas of rich arable soils in the area a dispersed agricultural pattern which relied on the exploitation of scattered pockets of these soils was practiced. This kind of cultivation would be well adapted to the interior of the Fall Line Hills environment and could have provided the needed addition to an already well established diffuse pattern of hunting and gathering that appears to have been practiced earlier.

The Milamo site in the Ocmulgee Basin may be an example of a developing civic center. This poorly reported site has a midden that contains significant amounts of Swift Creek Complicated Stamped pottery and a small platform mound. If this platform mound was contemporaneous with the village, something that has not been demonstrated, than a level of socio-political organization similar to that suggested for Kolomoki may have been developing in the Ocmulgee drainage. Snow's analysis of stamp designs indicates that Kolomoki and Milamo were in some form of contact with each other so it is not inconceivable that both were the centers of social activities that shared similar models of political organization. However, the differences in the environments that they occupied (Kolomoki on a creek in the Fall Line Hills and Milamo along a river in the Dougherty Plain) would indicate very different economic bases and a vast difference in the complexity of the social systems would be reflected in the elaborate mounds at Kolomoki and the seeming lack of burials at Milamo.

If the Swift Creek presence in the Ocmulgee Basin is as limited as I have suggested what then was the cultural presence during the Middle Woodland? Was there only a minor occupation focused on a few permanent sites or were there other dynamics in operation? I suggest that at this time the Ocmulgee Basin, as well as portions of the Flint and Savannah basins, were occupied by peoples who were making cord-marked pottery. This ubiquitous material, defined as Ocmulgee I, II, and III by Snow (1977) for the Ocmulgee is found on almost all of the sites throughout this basin and similar materials are found along the middle reaches of the Ocmulgee and Savannah Rivers. Data from the excavations at the Hartford Mound (Snow and Stephenson 1990) indicate that, at least at this site on the Ocmulgee, there is an identifiable stratigraphic relationship between the Ocmulgee Cord-Marked and Swift Creek materials with the cord-marking post-dating the complicated stamping. This seems to be supported by Schnell's findings from the Middle Flint where he dates similar material to a Woodland cultural tradition that lasted well into the Mississippian Period with a radiocarbon date of A.D. 1225±65 (Schnell and Wright 1993). Thermoluminescence determinations from cord-marked pottery recovered from the Telfair Mound date to A.D. 1360±60 and A.D. 1400 ± 50 (Bracken et al. 1985). At the Lowe site in southern Telfair County, Crook recovered thermoluminescence and radiocarbon samples that were calculated to be A.D. 1460±50, A.D. 1050±50, and A.D. 870±90. All of these dates are significantly later than what is suggested for typologically and culturally similar materials on the Savannah River (Sassman et al. 1990:14).

If all of the cord-marked pottery found in central Georgia post-dates Swift Creek as Snow suggests then there was a significant increase in both the number of sites in the Ocmulgee Basin as well as their sizes when this transition took place. Donated surface collections housed at West Georgia College from 58 sites in the area north of Hawkinsville and south of Warner Robins amount to approximately 4,500 pounds of ceramics and lithics, almost all of it cord-marked and plain pottery. How can we explain what appears to be in significant change in site density with no observed or even suggested changes in the

economic base? I think that the answer, and one generally supported by Crook's observations from the Lowe site (1987), is that the cord-marking, be it along the Ocmulgee, Flint of Savannah, was a long lasting and very conservative ceramic tradition that began during the Woodland Period and lasted until historic contact. Although supporting data is lacking I think that this cord-marking develops or is introduced prior to the development of complicated stamped pottery in this interior Coastal Plain area. The materials and sites that fit into the traditional Coastal Plain sequences (ie. the Swift Creek sites) as well as the Piedmont associated materials and sites (see Schnell and Wright 1993) represent some form of intrusion or co-occupation.

This concept of a post-Deptford cord-marked ceramic tradition is supported by data from the Savannah River Site. Sassman et al. (1990; 1993) report that this period is marked by the presence of cord-marked and fabric-marked sherds to the virtual exclusion of other kinds of materials. They suggest that this represents a regional merging of three great ceramic traditions -- the Coastal Plain check stamping from the south, cord-marking from the northwest and fabric marking from the northeast (1993: Figure 24). This interaction begins at circa 500 B.C. and sees the disappearance of both check stamping and fabric-marking by A.D. 500. At the Savannah River Site and on other areas of the Savannah there is a glaring absence of burial mounds or any ceremonial structures which are known further the northwest (Jefferies 1976), southeast (Thomas and Larsen 1979) and southwest (Keller et al. 1962; Smith 1979) that date to this period. This is especially interesting because the Savannah River was the focus of Mississippian Period occupations with their elaborate ceremonial structures but, as with the earlier Deptford culture, obvious Middle Woodland Period socio-political elaboration did not occur here which as it did in other areas of Georgia.

Late Woodland: Weeden Island and More Cord-Marking

The appearance of the Weeden Island series of punctated, incised, and red painted ceramics in midden and mound contexts along with Late Swift Creek pottery marks the beginning of the Weeden Island period. As with Late Swift Creek, Weeden Island sites are fairly numerous along the Chattahoochee and much less so along other river drainages, and completely absent from the Savannah. Early Weeden Island mounds are noted for their mortuary vessels which feature, among other things, animal effigies, geometric cut outs, elaborate use of incising and punctuation, human effigies, Late Swift Creek Complicated Stamped pots, as well as Weeden Island series vessels. These ceramics are found in deposits that are on the east side of the mounds, continuing a pattern established with the Early Swift Creek affiliated Green Point Complex (Sears 1962). The distribution of Weeden Island sites, both Early and Late, along the Chattahoochee mirrors that for the preceding Early and Late Swift Creek periods.

At the Kolomoki site a true Early Weeden Island area in the village midden is confined to the southern section of the crescent shaped deposit. There is no Weeden Island

material known from the other areas of the village midden. Mound D at Kolomoki fits into this period as well while Mound E dates to the Late Swift Creek occupation of the site. This shift in the community pattern suggests that the development of the political organization towards a chiefdom level of organization may have been terminated during the transition from Late Swift Creek to Early Weeden Island (Steinen 1993).

Late Weeden Island sites are recognized by the disappearance of complicated stamping and the re-appearance of check stamping, this time vessels with a smaller check size, folded rims and no tetrapods. As time progresses the check stamped pottery, now called Wakulla Check Stamped, increases in numerical importance and the classic Weeden Island types drop out (Willey 1949:396-402; Brose 1984). Often referred to as the Wakulla Phase this period is documented for the Lower Chattahoochee, Flint and Apalachicola Rivers but is almost entirely absent from other drainages and represents the final Woodland occupation of this area.

It is difficult to distinguish between the Early and Late Weeden Island mounds. If we use the presence or absence of complicated stamping and check stamping as determining factors then several of the mounds on the Chattahoochee and Flint Rivers fit both periods. Moore's descriptions of the Mound Near Kemp's Landing site is an example of this. Here the recovered materials are described: "There was little variety of form, pots and bowls being met exclusively. ... Decoration, when present, consists of the small check stamp; the complicated stamp, faintly impressed; very rude incised line decoration in two instances in sherds; in one case an incised decoration of wavy lines and punctate markings ..." (Moore 1907:429). A similar combination of check stamping (Wakulla), complicated stamping (Swift Creek) and incising/punctuation (Weeden Island types) was found at the Mound Below Hares Landing, and Mound Near Shoemake Landing sites on the Chattahoochee, and the Mound Near Munnerlyn's Landing, and Mound Near Kerr's Landing sites on the Flint River (Moore 1907:450-456).

There is a wide range in the material found on Weeden Island mounds. Mound D at Kolomoki may be the best known example with its rich inclusion of elaborate effigy vessels, zoned painted pots, and a general lack of what can be thought of as cook pot forms. The absence of check stamping in Mound D indicates, if we accept the inclusion of check stamping as marking Late Weeden Island, an Early/Middle Weeden Island position for this mound. This is interesting because there do not appear to be similar mounds (the presence of the elaborate effigies but no check stamping) from the Chattahoochee, although they are common along the Gulf Coast (Moore 1903; 1907; 1918; Willey 1949). This continues a distributional pattern, established with the earlier Deptford materials, of a concentration of sites, both secular and sacred, along the coast.

Moore's published notes frequently include references to "the small check" being present and in the discussion of Mound Near Fannings Bayou, he includes a photograph of

a single tall jar with check stamped surface. He describes a few check stamped sherds and three complicated stamped vessels. The single illustration of complicated stamping shows a moderate rim fold and the stamp restricted to the neck of the vessel. This placement of the complicated stamp is mentioned for the three complicated stamped vessels that were recovered. The remainder of the illustrated vessels fit descriptions of Weeden Island types and almost all are exotic shapes including compound bowls. No effigy vessels are recorded from this mound.

These patterns of mound contents and distributions during the Weeden Island period indicate that the majority of the mounds were along the Gulf Coast and not the interior rivers. Further, with the exception of Kolomoki Mound D and E, the most elaborate inclusions are found along the coast, not the interior rivers. The distribution of middens mirrors that of the mounds. Weeden Island middens, both Early and Late, are more numerous on the coast than along the inland rivers (Steinen 1976a). This continues the pattern begun with Deptford/Yent of an obvious coastal orientation for site distributions. Milanich's argument for a seasonal movement probably do not hold for Weeden Island (or the preceding Swift Creek period for that matter) because the overall number of sites, their size and complexity (note the stratification and density of materials at Farichilde's Landing for example) indicate that they were permanent not seasonal occupations.

Although we have traditionally used a bi-partite division for Weeden Island based on the Complicated Stamped - Check Stamped succession in both middens and mounds, I believe that the data for this has been forced into a limited model. Attempts to further subdivide Weeden Island (see Sears' Weeden Island 1 (Early) a and b and the Percy and Brose Weeden Island 1-5 models) have done little to help and have added much confusion. With few exceptions, especially with the mound collections that we have to work with, the ceramics represent a continuum of development. Placing them into a presumed 2 or 5 stage sequence does little to add to our understanding of how these societies functioned and changed through time. If we have mounds that contain Weeden Island, complicated stamped and check stamped ceramics at the same time, as is often found, are we dealing with a transitional Weeden Island Early/Late or perhaps do the mixtures represent the curation of old ceramics that are included in later mounds? Recent excavations of a Weeden Island mound in south Georgia (Steinen 1989) supports this latter interpretation because the complicated stamped sherds (some of which fit the definition of Kolomoki Complicated Stamped) were at the center of the mound and the edges of these sherds were worn and had the appearance that they had been handled a great deal. The check stamped sherds and vessels, however, were recovered from the formal east-side cache and did not exhibit any indications of having been curated for long periods. Unfortunately, most of the data on Weeden Island mounds, either Early or Late, comes from Moore's work and the contextual data needed to make similar observations is absent. Until we can develop a greater understanding of the provenience of the check and complicated stamped materials in these "mixed" mounds we must rely on the analysis of style of vessels to develop patterns of

change. Unfortunately such efforts are often conjectural in nature and can be misleading at best.

A striking change occurs during the terminal Weeden Island period which is frequently referred to as the Wakulla Phase. White et al. (1981) and Belovich et al. (1983) have suggested that during the Wakulla phase there was an increase in the total number of sites and a new occupation of interfluvial areas with a particular emphasis on pockets of rich soils next to sinkhole swamps and lakes. This pattern supports a model proposed by Percy and Brose (1974) which argues for a population increase and occupation of interfluvial areas during the Late Woodland. Mistovich and Knight (1986) have suggested that many of the sites identified as Wakulla in fact should be assigned to the earlier Deptford/Cartersville period and the suggested patterns of change during the Wakulla Phase are the results of errors when assigning sherds to typological categories. Few burial mounds in Georgia can be assigned to the Wakulla Phase with any certainty. Perhaps the best documented are the Balfour Mound from Grady County (Steinen 1989) and the Lake Douglas mound in Decatur County (Kelly 1950b). The Balfour Mound is much smaller than Kolomoki Mound C and D and shows a mixture of Wakulla Check Stamped, Weeden Island types, both decorated and plain, and an inclusion of a few sherds with complicated stamped designs including Kolomoki Complicated Stamped. Kelly's work at the Lake Douglas Mound in Decatur County Kelly reports on a similar mound that had Swift Creek sherds in the mound fill but only Wakulla Check Stamped, plain and Weeden Island types in the ceramic cache (Kelly 1950b:1-19). Using conventional divisions both the Balfour Mound and the Lake Douglas mound would date to the early Wakulla Phase because of the presence of the Weeden Island series pots. Neither of these mounds contained the elaborate effigy vessels known from Kolomoki and many other Weeden Island and Late Swift Creek mounds along the Chattahoochee and Gulf Coast including those that contained check stamped pottery.

Late Swift Creek and Early Weeden Island are the most spectacular and elaborate ceremonial expressions of the Coastal Plain Woodland Period. It is interesting that beginning with Mandeville and peaking with Kolomoki there is an increasingly elaborate ceremonial aspect to these evolving cultures. During the post-Kolomoki period, however, there is a decrease in the elaboration of this aspect of the culture. Mounds become smaller, the effigy vessels disappear, and there are no indications for the centralization of civic or ceremonial authority. This increase in the number of sites, and by extension population size, and decrease in what appears to be the centralization of the society, is the result, according to Percy and Brose (1974), of a shift towards a greater reliance on small scale shifting agriculture which exploited pockets of arable soils. This shift in the economic system caused a decentralization of the society and increased competition between villages. The overall result of this inter-societal conflict was the eventual adoption of a Mississippian model of centralized social control. This model has merit in that it explains the devolution of Weeden Island society and the eventual re-establishment of a centralized form of socio-

political organization. However, it remains generally untested, especially in the area around Kolomoki (White et al. 1981).

Few Weeden Island sites are known from other than the Flint and Chattahoochee drainages. The Ocmulgee drainage has indications of Early Weeden Island occupations. Weeden Island ceramics are reported from 48 sites by Snow from the Ocmulgee Big Bend area. Nielsen (1966) reports only a few sites with Weeden Island materials from his survey and in the area north of Pulaski County they are practically unknown. Most of the reported Weeden Island sites from this area appear to have only a few sherds mixed into diverse surface collections.

There are, however, two good Early Weeden Island sites known from the Middle Ocmulgee Basin, one a burial mound and the other a village. The Shelly Mound was excavated in the 1960's and the materials are now curated at West Georgia College. The ceramics from this mound are mostly plain but there are good examples of Kolomoki Complicated Stamped, Swift Creek Complicated Stamped, and Weeden Island Plain vessels. There are no good examples of the incised or punctated Weeden Island types although two pots can be loosely assigned to the Carrabelle Incised and Carrabelle Punctated types. This small mound was located in a field on the second terrace over the Ocmulgee River and there was no Weeden Island midden in the vicinity.

The Andrews Farm site is an Early Weeden Island midden about 5 kilometers west of the Ocmulgee River swamp and adjacent to Big Indian Creek and a sinkhole. A preliminary analysis of materials excavated from pits by amateur archaeologists shows a mixture of Weeden Island types, including a Weeden Island Zoned Red rim, Weeden Island Incised, Carrabelle Incised and a few sherds of Swift Creek Complicated Stamped. The bulk of the material recovered, however was plain and cord-marked (West Georgia College Collections). To the north of Hawkinsville, going towards the Fall Line, Weeden Island materials are even more scarce than they are in the Big Bend area. This pattern parallels the Chattahoochee River where Weeden Island sites are known as far north as Columbus but not north of the Fall Line (McMichael and Keller. 1960). To the east and southeast Weeden Island sherds have been recovered from the Kings Bay region (R. Smith 1978) and the Okefenokee Swamp but there are no indications of a significant Weeden Island occupation. To the northeast the Oconee and Savannah Rivers do not appear to have had Weeden Island occupations. This indicates that the core of Weeden Island culture was along the lower reaches of the Chattahoochee River, the Apalachicola River and the Gulf Coast (Steinen 1976a; Milanich et al. 1984; Sears 1956). The presence of Weeden Island sherds and sites in the outlying areas may represent either a form of stimulus diffusion of ceramic traits or possibly, as with the Andrews Farm site and the Shelly Mound, an actual population intrusion. Unfortunately so little research has been carried out on these outlying sites the dynamics behind the existence of a very interesting Weeden Island presence cannot be explained with any certainty.

Away from the Chattahoochee and Lower Flint the Late Woodland appears to have been manifested in a conservative continuation of a ceramic tradition dominated by cord-marked ceramics. Cultigens were present, but apparently in small amounts (Sassman et al. 1990:15; Wood et al. 1986). Late Woodland civic centers and mounds are known for the Coast and the Piedmont, but are not reported for the area in between. This continues a pattern established during the earlier stages of the Woodland and roughly parallels that known for all of the interior drainage systems of the Coastal Plain with the exception of the Chattahoochee.

Conclusions

The Woodland Period on the Coastal Plain is well known for the Chattahoochee Drainage, but poorly known in other areas. The data that is available indicates that, based on the interpretation of ceramic distributions, there are two distinct culture areas that can be identified. The Chattahoochee River, southern reaches of the Flint River, and minimally as far east as the Ochlockonee River, participated in an archaeological cultural tradition that was allied with the Gulf Coastal area. To the north and east of this area, particularly along the Ocmulgee and Savannah Rivers, a ceramic development similar to the Chattahoochee/Lower Flint area is found only during the Early Woodland. Middle and Late Woodland assemblages in Ocmulgee and Savannah drainages are dominated by cord-marked pottery with small percentages of both Gulf Coast and Piedmont derived materials present at these sites or in what appear to be a limited number of "pure" sites.

The development of socio-political organization parallels the patterns shown in the ceramic development. The Lower Chattahoochee was the focus for the non-linear development of fairly sophisticated socio-political systems centered first at Mandeville and then later at Kolomoki. The presence of elaborate burial mounds during the Late Swift Creek and Early Weeden Island periods further attests to this development. Similar civic centers and burial mounds are not known for the Ocmulgee and Savannah Rivers during this pre-Mississippian period. A possible exception to this pattern is the Milamo site near Lumber City where there is a small flat topped mound adjacent to the Swift Creek midden. However, there has been no demonstration that these two features were use or occupied at the same time.

It is interesting that there are no known burial structures or civic centers for the central portions of the Ocmulgee and Savannah. There are abundant indications that there was an adequate population base to support the development of societies similar to those on the Chattahoochee River on these two rivers. However they do not appear to have occurred. Perhaps Larson's arguments that the interior Coastal Plain did not provide an adequate resource base for the development of Mississippian societies holds true for the Woodland as well (Larson 1980).

The presence of sites that have predominantly Swift Creek and Weeden Island pottery, including one Weeden Island burial mound, in them in an area where most of the sites are dominated by cord-marked pottery is another striking pattern. There is little agreement as to the cultural-historical relationships between the Swift Creek, Weeden Island, and cord-marked materials along the Middle Ocmulgee River. Do these sites and ceramic inventories represent temporal succession or are we seeing a mixing of two ceramic traditions in what appears to be a very uneven pattern or, perhaps, are we seeing examples of site intrusion?

CHAPTER 6

RESOURCE MANAGEMENT CONSIDERATIONS

Currently one of the major foci of American archaeology is the management of archaeological resources. We recognize that archaeological sites and materials are links to our cultural past that cannot be replaced once they are destroyed. Unfortunately this destruction, be it through development, intentional and undisciplined digging by untrained hobbyists, or through natural causes, is occurring at an alarming rate. By recognizing patterns of distribution and specific research problems that need to be addressed we can incorporate Woodland studies into the systematic planning processes that are designed to protect Georgia's cultural heritage.

The Resource Base

There are literally thousands of known Woodland sites on the Coastal Plain of Georgia. These sites have features that can be used to divide them into four basic categories. These are: ceremonial mounds; conical burial mounds; developed middens; and small artifact scatters. These four features occur in various combinations at different sites and times. For instance at Kolomoki there are two categories of mounds and a developed midden (Sears 1956) while the Balfour Mound (Steinen 1989) was an isolated conical mound and sites such as the Sonny Lee Site (Steinen and Crawford 1990) and 9RH18 (Espenshade 1993) are small sites with low artifact densities.

Unlike the Piedmont and Ridge and Valley Mississippian (Hally and Rudolph 1986; Hally and Langford 1988) it is not possible to define a wide range of site types from the various combinations of these features. However, I can define, minimally, five different sites in a settlement hierarchy.

1. Civic Center. These are thought to be the center of civic activities relating to the management socio-political activities on a society-wide scale. This category of site generally has a ceremonial mound, minimally one burial mound, and a developed midden. The only good examples of a civic center during the Woodland are Mandeville and Kolomoki. Mandeville probably fits this category even though it lacks a truncated pyramidal mound form which is often a hallmark for these kinds of sites.

2. Mound/Village Complex. These sites consist of developed middens and an associated conical burial mound. They are probably the focus of a localized polity centered on a line of "Big Men".

3. Developed Middens. These sites range from villages to single family residences, depending on size, and represent satellite communities associated with either a Civic Center or a Mound/Village complex.

4. Isolated Conical Mound. These sites are a sub-set of the Mound/Village complex and represent the interment of "Big Men" where the associated villages, which may be a kilometer or more distant, have not been identified as yet (Sears 1968).

5. Small Artifact Scatters. These sites represent loci of re-occupation or re-use of an area over time. They are frequently multi-component sites, such as 9RH18 (Espenshade 1993), or single component sites such as Sonny Lee (Steinen and Crawford 1990) that represent a low intensity specialized use of an area.

Sufficient data, both artifactual and comparative, is available to support the interpretation for categories 1-4 but category 5 sites have received too little attention for them to be considered more than hypothetical.

Site Locations

Data on patterns of site distributions are not detailed because most of the research that has been conducted to date has not been designed to detect differences in, for instance, Deptford versus Early Swift Creek settlement patterns. However, it would be possible to use data contained in available reports, the State Archaeological Site Files, and publications to develop some of these patterns. In one of the few discussions of ceramic distributions across the Coastal Plain of the Southeast Sears (1977) documents that many of the sites are multi-component, something that is supported by White et al.'s (1981) and Belovich et al.'s (1983) collections from the Chattahoochee River Valley. White et al. support a model generated by Percy and Brose (1974:20-21) which sees an overall increase in the number of sites during the Late Weeden Island period and an increase in the range of the environments in which they are found. The most significant change being the appearance of sites with Wakulla Check Stamped and plain pottery in areas near swamps and around sink holes miles away from a river (White et al. 1981:664). Percy and Brose have attributed the greater number of sites and their placement to a growth in dependence on agriculture and a significant population increase (Percy and Brose 1974:20-21). Patterns similar to this for the Lake Seminole area appear to be found in the other river drainages. The known Woodland and later sites in the Ocmulgee Basin are generally found either along the banks of the river, its major tributary creeks, or on the bluffs within 1 kilometer of the river and creek swamps.

Intensive surveys of the Savannah River Site in South Carolina indicate that during the Woodland Period there was a complex and changing settlement pattern that reflected changes in the nature of the river and creek bottoms, economic systems, and socio-political systems. Early Woodland (Kellog) occupations were organized around individual

households dispersed among the terrace-bluff areas of the central portions of the major tributaries of the Savannah River. These were relatively self-sufficient communities that did not participate in exchange networks that involved non-subsistence resources and because of their relative isolation from the Savannah River these people did not participate in regional information exchange networks. The Middle Woodland sees the terraces of the Savannah being used for intensive settlement. Deptford settlements are found at two locations at the Savannah River Site as well as dispersed along the tributary streams. There is evidence that these people were involved in regional exchange networks of non-subsistence goods although there do not appear to be any indications of Hopewellian-like ceremonialism being practiced as there is at the Mandeville site on the Chattahoochee. The Late Woodland has a settlement pattern of small sites located on all of the river and creek terraces (Sassman et al. 1990:315-317).

The Kolomoki site and associated settlement pattern provide a variation to this general theme. Kolomoki is a good 10 kilometers east of the Chattahoochee River and sits on the broad uplands above Kolomoki Creek. My survey in the area between the Chattahoochee River and Spring Creek around Kolomoki (Steinen 1976b) indicates that there are few if any sites attributable to the Late Swift Creek and Early Weeden Island periods present in the interior areas around Kolomoki. This survey concentrated on the areas to the south and east of Kolomoki which were mostly in the Dougherty Plain environment. It is possible that villages that date to the Late Swift Creek and Weeden Island periods may be located along the creeks in the Fall Line Hills to the north and west of Kolomoki itself. The Piedmont-like environment of the Fall Line Hills, as opposed to the flat sandy soils and coastal plain resources of the Dougherty Plain, may have been the deciding factor for the location of Kolomoki and a different kind of settlement pattern than what is found further to the south. More recently I was able to identify over a half dozen Woodland Period sites in the Dougherty Plain during a public information program at Kolomoki Mounds State Park in 1994. The closest of these to Kolomoki is located on Breastworks Branch a good 10 kilometers to the southeast of the park. I have suggested elsewhere (Steinen 1993) that this settlement pattern, one where there were few if any Late Swift Creek or Early Weeden Island settlements near the Kolomoki center, reflects a pattern of nucleation which resulted in a partial abandonment of the interior.

Site Preservation

The Georgia Coastal Plain, with few exceptions, has not been the focus of the extensive population development that has occurred in the Piedmont. Because of this the archaeological resources of the area south of the Fall Line has been spared the destruction that so many of the sites in the Metropolitan Atlanta area have been subjected to. Unfortunately agriculture has been the basis for the economy of the Coastal Plain for over 100 years and this has ravaged the sites. Plowing and erosion have had significant effects on the archaeological resources. This is especially true in the sandy soils of the Dougherty Plain where extensive pine plantations are harvested and replanted. These processes can

easily destroy the stratigraphic integrity of a site. The movement of the machinery used for planting and harvesting the trees over the surface of the site not only affects the surface but it can cause materials to migrate vertically through the loosely consolidated sands (Steinen and Crawford 1990). The red clay soils of the Fall Line Hills provide a different set of dynamics because of their density. Here plowing as well as harvesting usually does not disturb the soil for more than about six inches below the surface. However, the erosion of the open agricultural fields that are so prevalent in this South Georgia has caused significant amounts of site deflation through sheet erosion. This was quite evident at Kolomoki where the only undisturbed deposits were found in low pockets that were below the plow zone (Sears 1956:8-10).

River impoundment projects have had a significant effect on the archaeological resources. Much of what we know about site distributions is the result of pre-construction surveys. Re-surveys of the same impoundments has provided a wealth of new information as well as interpretations and discussions (White et al. 1981; Belovich et al. 1983; Mistovich and Knight 1986) Even though these projects have told us much about the prehistory of the Coastal Plain the flooding of the river valleys have had a significant effect on the sites themselves as well as severely restricting their access for further research. Given the far reaching effects of agriculture, erosion and river impoundment, it is safe to say that it is only in exceptional circumstances that a Woodland site will have escaped significant damage through both natural and human induced dynamics.

Areal Coverage

Mark Williams (1994), after generating distributional maps of Woodland sites in Georgia, shows that there are significantly more Woodland sites known north of the Fall Line than there are south of it. He also points that there are extensive areas that have very few if any identified Woodland sites in them. This is especially true for the areas between the Flint and Ocmulgee Rivers and the Oconee and Ogeechee Rivers. This discrepancy in numbers is probably the result of two factors. The first is that the Coastal Plain has received significantly less attention by archaeologists than has the Piedmont, the Ridge and Valley and the Coastal Zone areas. The second is that the Coastal Plain, then as now, may have been less intensively occupied than other areas of the state. Larson, for the Late Mississippian Period, has argued that the environment of the Coastal Plain was not well suited for certain kinds of adaptive strategies (Larson 1980). These are the same kinds of strategies that had their roots in the Woodland Period (B. Smith 1975).

Research Problems in Coastal Plain Woodland Studies

Defining a universe of research problems is not an easy task. The problems that interest one archaeologist may seem trite to another. It is, however, possible to define a constellation of problems that represent gaps in our understanding of the archaeological record and cultural processes of the Woodland Period on the Coastal Plain.

Archaeological research must be conducted in three stages. The first is to define the chronology of a site or area, the second is to describe the material remains and reconstruct the cultural behavior of the people who lived at the site and in the area, and the third is to explain that behavior. Following this model I will define a range of research problems that pertain to questions of chronology, material culture and cultural behavior.

Questions of Chronology

The basic ceramic sequence for the Chattahoochee River has been defined and several refinements to it, in the form of phase definitions (not used in this paper), have been presented. Unfortunately many of these phase names have been developed from insufficient data and may or may not be accurate representations of temporal and spatial arrangements of the archaeological materials.

- 1. Chattahoochee and Lower Flint Rivers.**
 - a. Develop detailed phase definitions for the different defined sub-periods of the Woodland.
 - b. Confirm or modify existing phase definitions
 - c. Develop a series of reliable radiocarbon dates for Woodland sites. This is especially important for the Early and Middle Woodland sites.

- 2. Middle Flint and Ocmulgee Rivers.**
 - a. Develop detailed phase definitions for the different defined sub-periods of the Woodland.
 - b. Confirm or modify existing phase definitions
 - c. Develop a series of reliable radiocarbon dates for Woodland sites. This is especially important for the Early and Middle Woodland sites.
 - d. Establish the chronological and stratigraphic relationship between the Willey derived Coastal Plain ceramic complexes, the cord-marked materials, and the Piedmont related types.

- 3. East of the Ocmulgee River.**
 - a. Develop detailed phase definitions for the different defined sub-periods of the Woodland.
 - b. Confirm or modify existing phase definitions
 - c. Develop a series of reliable radiocarbon dates for Woodland sites. This is especially important for the Early and Middle Woodland sites.

- d. Establish the chronological and stratigraphic relationship between Coastal materials such as Deptford types and the cord-marked materials usually identified as Savannah Cord-Marked.

Questions of Artifacts and Lifeways

Our understanding of how people lived during the Woodland Period (lifeways) is extremely limited. Most of what we do know about the artifact systems is restricted to ceramics and projectile points. Housing, subsistence patterns, settlement hierarchies and other pertinent aspects of how Woodland peoples lived is virtually unknown although it has been speculated about to a great extent. Specific areas of investigations should include the following:

1. Artifact Systems:

- a. Develop detailed descriptions of the artifacts used by people during the Woodland Period. How did these artifacts allow for adaptation to the environment?
- b. Do the artifact systems show inter and intra-regional exchange or contact?
- c. Do the artifacts indicate patterns of seasonal adaptation or movement?

2. Subsistence and Economics:

- a. Was horticulture practiced during the Woodland Period on the Coastal Plain of Georgia? If so what role did it play in the overall subsistence pattern?
- b. If there was a horticultural element in the diet, when was it introduced?
- c. What were the hunting, fishing, and gathering patterns?
- d. What tools were used for hunting, fishing and gathering?
- e. Were there regional and/or temporal differences in subsistence?
- f. What was the storage technology used and how did it change through time?
- g. Are there indications of regional exchange systems?

3. Settlement Patterns:

- a. How did Woodland populations utilize the landscape?
- b. Was there a settlement hierarchy? If so when is it first recognizable and how did it change through time?
- c. Are there specialized site types that reflect the subsistence system, the socio-political system?

- d. Are there specific geo-environmental settings that these site types are found in? If so do they change through time?
- e. Are there seasonal specific site types? When do year-round settlement first appear?

4. Community Patterns:

- a. What are the Woodland houses like?
- b. What is the arrangement of these structures within the site?
- c. Are there indications of fortifications, activity areas, elite residence areas, and/or seasonal differences in structures?
- d. Are there indications of a relationship between the settlement and social systems?

5. Socio-political Organization

- a. What was the socio-political organization like?
- b. Was Kolomoki the center of a developing chiefdom?
- c. Do the burial patterns indicate patterns of growth and decline in the complexity of the socio-political system?
- d. What if any was the interaction between Kolomoki and other sites on the Georgia Coastal Plain? With other regional civic centers such as McKeithen (Milanich et al. 1984)?

BIBLIOGRAPHY

Belovich, Stephanie, David S. Brose and Russell Weisman with
Nancy M. White

1983 Archaeological Survey of George W. Andrews Lake, Alabama and Georgia. Archaeological Research Report 37. Cleveland Museum of Natural History, Cleveland.

Bracken, William L, Frankie Snow, Chris Trowel and Nancy White

1986 Archaeological Investigations in Telfair County, Georgia, 1985. Report submitted to the Georgia Department of Natural Resources. Atlanta.

Blanton, Dennis

1987 Archaeological Testing and Survey at Robins Air Force Base, Warner Robins, Georgia. Report on File, Office of the State Archaeologist, Carrollton, Georgia.

Brose, David S.

1984 Mississippian Cultures in Northwestern Florida. pp. 165-197 in Perspectives on Gulf Coast Prehistory, edited by Dave D. Davis, The University Presses of Florida, Gainesville.

Bullen, Ripley P.

1950 An Archaeological Survey of the Chattahoochee River Valley in Florida. Journal of the Washington Academy of Sciences 40:101-125.

1958 Six Sites Near the Chattahoochee River in the Jim Woodruff Reservoir Area, Florida. River Basin Surveys Papers, No. 14. Bureau of American Ethnology Bulletin 169, pp. 315-58, Smithsonian Institution, Washington, D. C.

Bullen, Ripley P. and James B. Stoltman (editors)

1972 Fiber-Tempered Pottery in the Southeastern United States and Northern Colombia: Its Origins, Context, and Significance. Florida Anthropological Society Publications No. 16.

Caldwell, Joseph

1958 Trend and Tradition in the Prehistory of the Eastern United States. Memoir No. 88, American Anthropological Association.

nd. Report of Excavations at Fairchild's Landing and Hare's Landing, Seminole County, Georgia, edited by Betty A. Smith. Report submitted to the National Park Service, Tallahassee.

Chase, David W.

1959 The Averett Culture. Coweta Memorial Association Papers No. 1.

Clafin, W.H., Jr.

1931 The Stalling's Island Mound, Columbus County, Georgia. Papers of the Peabody Museum, Harvard University, Vol. 14., No. 1, Cambridge.

Crook, Morgan R.

1987 Low Site Report: A Contribution to Archaeology of the Georgia Coastal Plain. Occasional Papers in Cultural Resource Management #3, Georgia Department of Transportation, Atlanta.

DeJartnette, David editor

1975 Archaeological Salvage in the Walter F. George Basin of the Chattahoochee River in Alabama. University of Alabama Press, University, Alabama.

Elliott, Daniel

1993 The Northern and Eastern Expression of Swift Creek Culture. In Mark Williams and Daniel Elliott eds. Papers of the Lamar Institute Swift Creek Conference, Macon, Georgia.

Elliott, Daniel T. and Jack T. Wynn

1991 The Vining Revival: A Late Simple Stamped Phase in the Central Georgia Piedmont. Early Georgia 19(1&2):1-18.

Espenshade, Christopher T.

1993 A Few Visits In Prehistory: Data Recovery Excavations At 9Rh18, Randolph County, Georgia. Occasional Papers in Cultural Resource Management #5, Georgia Department of Transportation, Atlanta.

Fairbanks, Charles H.

1942 The Taxonomic Position of Stalling's Island. American Antiquity 7(3):223-231.

1956 Archaeology of the Funeral Mound, Ocmulgee National Monument, Georgia. Archaeological Research Series No. 3, National Park Service, Washington, D.C..

Ford, James A.

1954 On The Concept of Types. American Anthropologist 56:42-54.

1969 A Comparison of Formative Cultures in the Americas: Diffusion Or The Psychic Unity of Man. Smithsonian Contributions to Anthropology, Volume 11, Washington, D.C..

Griffin, James B. and William H. Sears

1950 Certain Sand-Tempered Pottery Types of the Southeast. In Prehistoric Pottery of the Eastern United States, edited by J. B. Griffin. University of Michigan Museum of Anthropology. Ann Arbor.

Hally, David J. and James B. Langford, Jr.

1988 Mississippi Period Archaeology of the Georgia Valley and Ridge Province. University of Georgia Laboratory of Archaeology Series, Report Number 25, Athens,

Hally, David J. and James L. Rudolph

1988 Mississippi Period Archaeology of the Georgia Piedmont. University of Georgia Laboratory of Archaeology Series, Report Number 25, Athens,

Hamilton, Christopher E., James Lauro and David E. Swindell, III

1975 Analysis of Material Culture Remains From Cowart's Landing Site. Report on File, Southeast Archaeology Center, Florida State University, Tallahassee.

Huscher, Harold A.

1959a Appraisal of the Archaeological Resources of the Columbia Dam and Lock Area, Chattahoochee River, Alabama and Georgia. River Basin Surveys, Smithsonian Institution, Washington, D. C..

1959b Appraisal of the Archaeological Resources of the Walter F. George Reservoir Area, Chattahoochee River, Alabama and Georgia. River Basin Surveys, Smithsonian Institution, Washington, D. C..

Jefferies, Richard W.

1976 The Tunacunnhee Site: Evidence of Hopewell Interaction in Northwest Georgia. Anthropological Papers of the University of Georgia, No. 1, Athens.

Kellar, James H., A. R. Kelly and Edward McMichael

1962 The Mandeville site in Southwest Georgia. American Antiquity 27:336-355.

Kelly, A. R.

1938 A Preliminary Report on Archaeological Exploration at Macon, Georgia. Bureau of American Ethnology Bulletin 119. Smithsonian Institution, Washington, D. C..

1950a A Survey of the Lower Flint and Chattahoochee Rivers. Early Georgia 1:27-33.

1950b A Weeden Island Burial Mound in Decatur County, Georgia; the Lake Douglas Mound, 9Dr21. University of Georgia Laboratory of Archaeology Series, Report No. 1, Athens.

Kelly, A. R., Richard Nonas, Bettye Broyles, Clemens DeBaillou,
David W. Chase and Frank T. Schnell, Jr.

1962 Survey of Archaeological Sites in Clay and Quitman Counties, Georgia. University of Georgia. Laboratory of Archaeology Series, Report No. 5. Athens.

Kelly, Arthur R and Betty A. Smith

1975 The Swift Creek Site, 9 BI 3, Macon, Georgia. Report on File, Laboratory of Archaeology, Department of Anthropology, University of Georgia, Athens, Georgia.

LaForge, Laurence, W. Cooke, A. Keith and M. R. Campbell

1925 Physical Geography of Georgia. Geological Survey of Georgia Bulletin 42, Atlanta.

Larson, Lewis

1980 Aboriginal Subsistence Patterns on the Southeastern Gulf Coastal Plain During The Late Prehistoric Period. The University Presses of Florida, Gainesville.

McMichael, Edward V. and James Kellar

1960 Archaeological Salvage in the Oliver Basin. University of Georgia Laboratory of Archaeology Series No. 2. Athens.

Milanich, Jerald T.

1971 The Deptford Phases: An Adaptation of Hunting Gathering Bands to the Southeastern Coastal Strand. Southeastern Archaeological Conference Bulletin 15:21-33.

1973 The Southeastern Deptford Culture: A Preliminary Definition. Bureau of Historic Sites and Properties, Division of Archives, History, and Records Management Bulletin No. 3. Florida Department of State, Tallahassee.

Milanich Jerald T. Ann S. Cordell, Vernon J. Knight, Timothy A. Kohler
and Brenda Siegler-Lavelle

1984 McKeithen Weeden Island: The Culture of Northern Florida, A.D. 200-900.
Academic Press, Orlando.

Mistovich, T.S and V.J Knight.

1986 Excavations at Four Sites on Walter F. George Lake, Alabama and Georgia. Report Submitted to the U.S. Army Corps of Engineers, Mobile District by the University of Alabama, Office of Archaeological Research, Report of Investigations 49.

Moore, Clarence B.

1903 Certain Aboriginal Mounds of the Apalachicola River. Journal of the Academy of Natural Sciences 12:440-494. Philadelphia.

1907 Mounds of the Lower Chattahoochee and Lower Flint Rivers. Journal of the Academy of Natural Sciences 13:426-456. Philadelphia.

1918 The Northwestern Florida Coast Revisited. Journal of the Academy of Natural Sciences (Second Series) 16:514-581. Philadelphia.

Nielsen, Jerry

1966 Preliminary Report of an Archaeological Survey of the Heart of Georgia Planning and Development Commission Area. Report on File, Office of the State Archaeologist, West Georgia College, Carrollton, Georgia.

Percy, George W. and David S. Brose

1974 Weeden Island Ecology, Subsistence and Village Life in Northwest Florida. Paper Presented at 39th Annual Meeting of the Society for American Archaeology, Washington, D. C.

Sassman, Kenneth E with Mark J. Brooks, Glen T. Hanson and David G. Anderson.

1990 Native American Prehistory of the Middle Savannah River Valley. Savannah River Archaeological Research Papers 1, Occasional Papers of the Savannah River Archaeological Research Program, South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia.

Sassman, Kenneth E with Mark J. Brooks, David Colin Crass, William Green, George S. Lewis and D. Keith Stephenson

1993 Early Woodland Settlement in the Aiken Plateau. Savannah River Archaeological Research Papers 3, Occasional Papers of the Savannah River Archaeological Research Program, South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia.

Scarry, John F. and Claudia Payne

1986 Mississippian Polities in the Fort Walton Area: A Model Generated From The Renfrew-Level XTENT Algorithm. Southeastern Archaeology 5(2):79-90.

Schnell, Frank

1975 An Archaeological Survey of Lake Blackshear Southeastern Archaeological Conference Bulletin 18:117-122.

Schnell, Frank T and Newell O. Wright, Jr.

1993 Mississippi Period Archaeology of the Georgia Coastal Plain. University of Georgia Laboratory of Archaeology Series Report Number 26, Georgia Archaeological Research Design Paper No. 3, Athens.

Sears, William H.

1951a Excavations at Kolomoki, Season 1-1948. University of Georgia Series in Anthropology No. 2. University of Georgia Press, Athens.

1951b Excavations at Kolomoki, Season II: Mound E. University of Georgia Series in Anthropology No. 3. University of Georgia Press, Athens.

1953 Excavations at Kolomoki, Seasons III and IV: Mound D. University of Georgia Series in Anthropology No. 4. University of Georgia Press, Athens.

1956 Excavations at Kolomoki: Final Report. University of Georgia Series in Anthropology, No. 5. University of Georgia Press, Athens.

1960 Ceramic Systems in Eastern Archaeology. American Antiquity 25(3):324-329.

1962 The Hopewellian Affiliation of Certain Sites on the Gulf Coast of Florida. American Antiquity 28:5-18.

1964 The Southeastern United States. In Prehistoric Man in the New World, edited by J. D. Jennings and E. Norbeck, pp. 259-290. University of Chicago Press.

1968 The State and Settlement Patterns in the New World. In Settlement Archaeology, K.C. Chang ed, National Press Books, Palo Alto.

1977 Prehistoric Culture Areas and Culture Change on the Gulf Coastal Plain. In For the Director: Research Essays in Honor of James B. Griffin, edited by Charles E. Cleland Museum of Anthropology, University of Michigan, Anthropological Papers No. 61. Ann Arbor.

1992 *Mea culpa*. Southeastern Archaeology 11(1):66-71.

Sears, William H. and James B. Griffin

1950 Fiber-Tempered Pottery of the Southeast. Prehistoric Pottery of the Eastern United States, Museum of Anthropology, University of Michigan, Ann Arbor.

Smith, Betty A.

1975 A Re-analysis of the Mandeville Site, 9 Cla 1, Focusing On It's Internal History and External Relations. Ph.D. Dissertation, University of Georgia, Athens

1979 The Hopewell Connection in Southwest Georgia. In David Brose and N'omi Greber eds. Hopewell Archaeology: The Chillicothe Conference. The Kent State University Press, Kent.

Smith, Bruce D.

1975 Middle Mississippi Exploitation of Animal Populations. Museum of Anthropology, University of Michigan, Anthropological Papers No. 57, Ann Arbor.

Smith, Marvin T. and Stephen Kowalewski

1980 Tentative Identification of a Prehistoric "Province" in Piedmont Georgia. Early Georgia 8:1-13.

Smith, Robin

1978 An Archaeological Survey of Kings Bay, Camden County, Georgia. Ms. on File, Department of Anthropology, University of Florida, Gainesville.

Snow, Frankie

1977 An Archaeological Survey of the Ocmulgee Big Bend Region. Occasional Papers From South Georgia, Number 3, South Georgia College

1993 Swift Creek Design Investigations: The Hartford Case. In Mark Williams and Daniel Elliott eds Papers of the Lamar Institute Swift Creek Conference, Macon, Georgia, Douglas.

Snow, Frankie and Keith Stephenson

1990 Hartford: A 4th-Century Swift Creek Mound Site in the Interior Coastal Plain of Georgia. Paper Presented at the 47th Annual Meeting of the Southeastern Archaeological Conference, Mobile.

Steinen, Karl T.

1976a An Archaeological Survey of Early County, Georgia. Florida State Museum, Miscellaneous Project Report Series, No. 2. Gainesville.

1976b The Weeden Island Ceramic Complex: An Analysis of Distribution. Unpublished Ph.D. Dissertation, Department of Anthropology, University of Florida, Gainesville.

1989 The Balfour Mound and Weeden Island Culture in South Georgia. Early Georgia 17 (1&2):1-23.

1993 Kolomoki and the Development of Socio-Political Organization on the Gulf Coastal Plain. In Mark Williams and Daniel Elliott eds Papers of the Lamar Institute Swift Creek Conference, Macon, Georgia.

Steinen, Karl T. and Thomas Crawford

1990 The Sonny Lee Site: Shifting Sands and Archaeological Site Interpretation on the Gulf Coastal Plain. Early Georgia 18 (1&2):65-81.

Stephenson, Keith, John E. Worth and Frankie Snow

1990 A Savannah Period Mound in the Upper-Interior Coastal Plain of Georgia. Early Georgia 8 (1&2):41-64).

Stoltman, James B.

1974 Groton Plantation: An Archaeological Study of a South Carolina Locality. Peabody Museum Monographs No. 1, Harvard University.

Stoutamire, James W., Chad O. Braley, Thomas R. Gest
and Patricia A. Logan

nd. The Tuft Springs #1 (13 Bi 25) and #2 (13 Bi 19) Sites in Central Georgia Prehistory. Report on File, Southeast Archaeology Center, Florida State University, Tallahassee.

Thomas, David Hurst and Clark Spencer Larsen

1979 The Anthropology of St. Catherines Island 2.: The Refuge-Deptford Mortuary Complex. Anthropological Papers of the American Museum of Natural History, New York.

Walthal, John A.

1980 Prehistoric Indians of the Southeast: Archaeology of Alabama and the Middle South. The University of Alabama Press, University.

Wauchope, Robert

1966 Archaeological Survey of Northern Georgia, With a Test of Some Cultural Hypotheses. Memoirs of the Society for American Archaeology No. 21.

White, Nancy Marie with Stephanie J. Belovich and David S. Brose

1981 Archaeological Survey at Lake Seminole. Cleveland Museum of Natural History Archaeological Research Archaeological Report Number 29, Cleveland.

Wiley, Gordon R.

1949 Archaeology of the Florida Gulf Coast. Smithsonian Miscellaneous Collections. Volume 113. Washington, D. C..

Wiley, Gordon R. and Phillip Phillips

1958 Method and Theory in American Archaeology. University of Chicago Press, Chicago.

Williams, Mark

1975 Stubbs Mound in Central Georgia Prehistory. Report on File, Southeast Archaeology Center, Florida State University, Tallahassee.

1994 Archaeological Site Distributions in Georgia: 1994. Early Georgia 22(1):35-76.

Williams, Mark and Daniel Elliott eds.

1993 Papers of the Lamar Institute Swift Creek Conference, Macon, Georgia (xerox).

Wood, W. Dean, Dan T. Elliott, Teresa Rudolph and Dennis Blanton

1986 Prehistory in the Richard B. Russell Reservoir: The Archaic and Woodland Periods of the Upper Savannah River. Interagency Archaeological Services Division, National Park Service, Russell Papers, Atlanta.

Zierden, Martha A.

1978 The Hawkins Point Site (15 Bi 21) in Central Georgia Prehistory. Report on File, Southeast Archaeology Center, Florida State University, Tallahassee.

